AGE IN STANDARDS AND STANDARDS FOR AGE

Institutionalizing Chronological Age as Biographical Necessity

Judith Treas

How old are you? Even before toddlers are out of diapers, we take for granted that they will be able to answer this simple question. In fact, teachers regard youngsters who arrive at preschool without having mastered this bit of autobiography as woefully unprepared for school and for life. And although it is enough if preschoolers can give their age in years, older children must also know their birthdays. This information permits them to report their age with great numerical precision. As comedian George Carlin (2008) observed, "If you're less than 10 years old, you're so excited about aging that you think in fractions. How old are you? I'm four and a half." We accept that chronological age is an important marker of social competence and an essential tool for navigating the life course. Certainly, our society makes age—precise chronological age—something that no one should be without.

In focusing on chronological age, that is, time since birth, my objective is to consider how this bit of personal biography came to be used to create a widely employed standard for segmenting and stratifying individuals. Incorporated into the standards imposed from above to address particular administrative problems, chronological age evolved into a taken-for-granted element of personhood that we use as the basis for day-to-day interactions. Rather than arising naturally from everyday practice, chronological age became a privileged standard for classifying individuals because state bureaucracies formalized its widespread use as the standard to determine eligibility for public pension benefits. The adoption of chronological age as a metric for standards was not an end in itself. Its imposition served as a means to improve other processes; it brought numerical precision, certainty, and impartiality to classification practices that are otherwise inexact and arbitrary. Only later did the use and, indeed, knowledge of age in years become
ubiquitous—achieving status as the classification employed in even grassroots standards. The schoolyard taunt "No five-year-olds can play" illustrates the use of a grassroots convention in everyday classificatory exercises of inclusion and exclusion.

Today, chronological age is remarkably wide in the scope of its coverage. On the basis of chronological age, women are referred for mammograms, children are allowed to play league soccer, and seniors qualify for dining discounts. In a host of contexts, from consumer marketing to curricular rubrics, chronological age serves as an operational measure of needs, capacities, preferences, and entitlements. The general rationale for these uses is the association of chronological age with other things that can be measured only imperfectly or with greater effort. Age in years, however, is so frequently and commonly employed that we lose sight of how loosely associated chronological age actually is with reading readiness, musical tastes, and other "age-related" factors.

Chronological age has supplanted other useful ways of thinking about age, a significant administrative achievement, particularly because most people in the West did not even know their exact chronological age before the eighteenth century. Greater precision in reckoning age is the result of embedding chronological age in administrative practice. When age really mattered in practice, individual precision in reporting chronological age swiftly followed. And, as chronological age became more significant to administrative processes, as it became the basis for standards, the production of exact age emerged as an objective in its own right. Although many things ride on chronological age, some people today pose challenges to age systems of classification. Either they do not know their precise age or their age records—collected over a lifetime for disparate purposes—are inconsistent. Because we invest so much in chronological age as the basis for a standard, bureaucracies find it necessary to develop standards for age, that is, formal rules to be followed in evaluating evidence that might serve as proof of age. In short, like Steven Epstein (chap. 2), Martha Lampland (chap. 3), and Martin Lengwiler (chap. 4 in this volume), I address here the broad classificatory project that enabled the standardization, both normative and statistical, of infinitely variable human beings.

**Alternative Concepts of Age**

When asked how old we are, we invariably answer with a number, our chronological age in years. We have other options, such as "younger than you are" or "older than I look," but these replies are generally taken as flippantries rather than responsive answers to a serious question. That we discount such responses suggests that chronological age has crowded out other legitimate ways of classifying age from our everyday consciousness. Although we may emphasize chronological age, this numerical indicator reflects only one conception of age. In many circumstances, there are other, more appropriate concepts than the mere passage of years. Thus, it is useful to consider alternative age concepts that have been overshadowed by our privileging of chronological age.

Relational, social, functional, and subjective criteria all speak to aspects of age that are imperfectly captured by the calendar time since birth. In traditional Confucian culture, where social relations were structured by hierarchical obligations, relational age—for example, being the older rather than the younger brother—mattered more than being thirty-nine instead of twenty-nine years of age. Older brothers merited the respect of younger ones, whatever their chronological age. In U.S. society, fine points of etiquette and protocol still revolve around relational issues of who is older and who is younger. When extended families gather for Thanksgiving dinner, coveted places at the dining room table are reserved for older kin while younger ones—sometimes into middle-age—are relegated to an improvised kid's table in the kitchen.

Of course, individuals may also be age-classified according to the age-related social roles that they assume. This classification embodies social age. At the beginning of the nineteenth century, British social workers fretted about teenage boys who labored as the main support of their parental family. In keeping with a boy's social age as the principal breadwinner, his grateful kin bestowed on him adult privileges not in keeping with his youth: kippers, tea, and the most comfortable chair in the house (Gillis 1974). In the west of Ireland in the 1920s, Conrad Arensberg and Solon Kimball (1968) observe that men in their forties were classified as "boys" if they were still single and under the authority of an aging father who had yet to turn over the farm to their management.

Functional age is concerned with the capacity to carry out those responsibilities associated with a particular phase in the life course. Social age addresses role performance; functional age is concerned with age-related capabilities. For example, girls are not considered as women until they have, at a minimum, reached puberty. In deciding who should be classified as marriageable and who should not, what matters in most societies has been physical maturity, namely the biological readiness to conceive, carry a fetus to term, and give birth to a healthy child. To be sure, our laws fall back on chronological age to set a lower bound for marriage (Gordon 1989), but functional age remains an important, if often unrecognized, force in social life. Whether we consider Pakistan (where marriages are arranged early) or the United States (where later love matches are the rule), women who reach menarche earlier also marry earlier (Udry and Cliquets 1982). Thus, functional age plays a role, even in societies where chronological age is the dominant standard for classifying individuals. Indeed, the formal measurement of functional age has received scientific attention (e.g., tests of reading readiness, biomarkers of "normal" aging), but these complex classification projects see application as standards only for particular groups (young and old) and in narrow domains (education and medical care) in which the measures are often benchmarked against
chronological age norms. No doubt, functional age matters more to societies that
do not rely on exact chronological age to sort individuals.

People do not necessarily identify with their chronological age. Bernard Baruch
(1995) illustrated this fact of life famously when he declared "old age is always fifteen
years older than I am." Subjectively, people may classify themselves as feeling
younger or older than their years, consistent with indicators of their functional age
(e.g., health), their social age (e.g., widowhood), and their relational age (e.g., hav-
with their personal assessments of the age group to which they belong. When pre-
teens began to identify with adolescents instead of children, for example, they
dealt a financial blow to the Mattel Corporation by abandoning Barbie dolls for
CDs and cosmetics. The loose coupling of subjective and chronological age is one
sign of grassroots resistance to the hegemonic influence of numerical age within an
age- stratification system that determines who gets which rewards (e.g., autonomy
and respect).

There is an imperfect match of subjective and objective indicators of age (Lo-
gan, Ward, and Spitze 1992). This points to contradictions in a society that privi-
leges chronological age over other conceptions of how old we are. That chronological
age came to be imposed as the basis for the age standard reflects a modernist pro-
clivity for both classification and standardization. Our reliance on chronological
age also illustrates the tensions and challenges posed by systems that seek to ra-
nationalize personal biography.

Embracing Chronological Age

In earlier times, hardly anyone cared about a precise accounting of time since
birth. Historically, few people in the West could reckon their ages. Only the birth-
days of the nobility were regarded as important enough to warrant an observance.
Because making a fuss about a mere birth date was so closely associated with roy-
alty, Thomas Jefferson expressed his discomfort when citizens of the new republic
took to celebrating the birthday of George Washington (Chudacoff 1989). Birth-
days for the average citizen, the commoner, and the peasant went unrecorded and
passed unmarked. Where there were baptismal records, they languished in the
parish register because exact age (as opposed to a rough estimate) was of little use
to anyone. Given the high levels of infant mortality, a preoccupation with birth-
days could only have been a painful reminder of loss for many parents. If these
were annual markers for the passage of personal time, they were the seasons, the
new year (Chudacoff 1989), or a personal saint’s day.

China was not marked by age indifference (Thompson 1990). The Chinese cal-
dendar, based on the cycle of animals, made it easier to recall the year of one’s birth.
The widespread practice of astrology gave people a reason to care about when they
were born. The Chinese did not routinely celebrate birthdays as we do in the West
today, but ages sixty, seventy, and eighty were important benchmarks commemo-
rated by the common people. Chinese age reckoning differed from that in the
West. At birth, an individual was assigned an age of one, and calculations were based
on a lunar year that was several days shorter than the solar year used in the West
(Shryock and Siegel 1973). Parenthetically, the Chinese reckoning of time on the
basis of the lunar year illustrates the mining and articulation of the classification
and measurement systems behind standards. The history of how the Gregorian
calendar came to be widely adopted by Western societies (and, thus, available for
the computation of chronological age) is beyond the scope of this chapter.

Outside China, hardly anyone bothered reckoning chronological age. Most
people neither knew nor cared exactly how long they had lived. Commenting on
England, Pelling (1991, 81) concludes, "While there was a sharp awareness of the
different phases of life, including old age, and the legal definition of an idiot
was someone who could not tell his own age, there is little hope of people know-
ing their own precise date before the eighteenth century or even later." Illiteracy
con-
tributed to the general impression about years-since-birth, but this lack of
numerical age-consciousness also reflected the absence of community practices
that might have given salience to chronological age. "In general, arrival at a specific
age created no entitlement to charity, poor relief, poor law pension or medical
treatment" (Pelling and Smith 1991, 20). This is not to say that there were no in-
stances when chronological age was codified. Although age provided no charitable
advantage, except perhaps the right of the old to glean, English enactments dating
from 1349 excluded individuals at age sixty from military service, compulsory la-
bor, and prosecution for vagrancy (Thane 2000). The concern, however, was with
functional age, that is, the capacity to fulfill these obligations. Because chronolog-
ical age served as a rough indicator of capacity, it was enough that people were able
to offer a reasonable estimate of their age in years.

Just because people were indifferent to chronological age did not mean that they
were indifferent to age, particularly functional age. Broad age groups were
universally acknowledged. In "As You Like It," William Shakespeare (1600) enu-
erated seven stages of humans from "the infant, mewing and putking in the
nurse’s arms," to the old man "sans teeth, sans eyes, sans taste, sans every thing." By
the Renaissance, a distinctive representational iconography emerged that por-
trayed life’s stages as stair steps ascending to vigorous middle years and then de-
sending to decrepitude (Cole 1992). Despite the metaphorical power of age
imagery, in practice there were fewer meaningful age distinctions than in our own
society, and the divisions between age groups were less sharp.

Absent age-segregated social institutions such as retirement or schooling, young
and old shared the same social world (Arlès 1962). There was little reason to sepa-
rate youths from adults until the advent of formal schools. Age-grading within
schools, grouping youngsters by chronological age in the classroom, did not
emerge as an educational practice in the United States until the nineteenth century
(Chudacoff 1989). Later, protective child-labor laws would prove the wedge that finally segregated children from the world of working adults. Historically, older people, too, were largely integrated into the broader community. Retirement did not exist as an institution. People worked as long as they were able to do so. To quit working was to become a burden on family or community and to suffer the stigma of dependence and decrepitude. Admitting paupers of all ages, the early poorhouse exemplified the age-integration of the broader society. Only after specialized institutions such as the orphanages for children, asylums for the insane, and out-relief for working-age adults shipped off its younger population did the poorhouse turn into a de facto old-age home (Gatton 1986).

The historical absence of age-specialized social institutions underscores the fact that many discrete age groups, each with attributions of distinctive needs and capacities, are a classificatory project of modernism. To be sure, age-graded societies have long existed, but social age defined by membership in a promotion cohort, not chronological age, was the hallmark of these societies (Lévy 1996). Ariès (1962), the French historian, observed that adolescence blurred with childhood until the eighteenth century. The transitional age between childhood and adulthood was not fully institutionalized until 1904 when G. Stanley Hall, a U.S. psychologist, introduced the term adolescence in his landmark study Adolescence: Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education. Since that simpler time, preteen has entered our vocabulary to mark the transitional phase inserted between childhood and adolescence. At the other end of the life course, gerontologists first distinguished between the distinctive needs and capacities of the “young-old” (65–74) and the “old-old” (75 and older) (Neugarten 1974). With the rapid aging of the older population, scholarly attention at the end of the twentieth century was soon directed to the “oldest old” (Boudin, Sanborn, and Reif 1989) and to centenarians (Knack and Velkoff 1999).

Despite heroic efforts to categorize the years between young adulthood and old age in terms of developmental stages, no particular categorization has taken hold, and middle age remains ripe for further compartmentalization.

Chronological Age and Old Age

Many factors contributed to the increased awareness of precise chronological age. Noting wryly that medieval Catholics were preoccupied with eternity, not longevity, Cole (1992) credits the modernist penchant for self-improvement with drawing attention to calendar age. Advanced chronological age, he argues, served as a rational indicator of a life lived in accord with moral principles and hygienic practices. Kohli (1986) offers another explanation for why broad age categories were supplanted by chronological age, a more precise measure that served to standardize the life course by facilitating the spread of age-specific rules, norms, and expectations. Critical to his argument is the emergence of the individual—liberated from family, church, and community—as the object for a host of state social programs, particularly those organized around the labor system. These arguments about the significance of work and health to the salience of chronological age direct our attention to old age. Until fairly recently, functional age and exact chronological age were only loosely coupled in the last phase of the life course, but the link between advancing age and infirmity has been tightened.

To limit demands on public funds and to encourage private responsibility, public assistance for the old was historically restricted to those who qualified by virtue of need (e.g., disability, inability to support self, and lack of kin) and merit (long time community residence, moral character, or faithful service). An arbitrary criterion based on chronological age might be used to establish eligibility, but this could only have been a rough benchmark of superannuation, given that most people knew only their approximate chronological age. Whether an eligibility criterion was set at sixty or eighty, it served to communicate generally shared understandings about the level of infirmity that might justify public support. In other words, the chronological age criteria that were applied in the administration of public old-age support spoke to functional age, the degree of physical or mental incapacity regarded as typical among those attaining a given chronological age. Although these judgments sometimes incorporated expert opinion and scientific understandings, they often built on lay beliefs (e.g., about the threshold of old age) that arose from everyday interactions of individuals within diverse social contexts.

The ready substitution of chronological and functional age criteria presumes the existence or construction of norms, be they social or statistical, about the capacities of individuals of different numerical ages. Shared understandings about the physiological declines associated with old age had, no doubt, always existed, but David Hackett Fischer (1978) notes the popular devolution of older Americans that began in the earliest days of the Republic. Negative cultural views of old age were, in fact, fostered by a growing body of scientific knowledge that lent empirical specificity and statistical precision to age norms. Based on scientific observation, physicians in Parisian hospitals were among the first to draw on clinical experience and autopsies of elderly patients to document the progressive physical degeneration associated with the passage of years (Troyansky 1989). By the mid- to late nineteenth century, British and U.S. doctors were also describing old age as a pathological condition marked by unique organic deterioration (Haber 1983).

The belief in age-related decline justified the creation of broad categories of incapacity bound by chronological age, as suggested by the physician, William Osler, in 1905. Upon his retirement from Johns Hopkins University Medical School at the age of fifty-eight, Osler delivered an influential lecture that lauded the productivity and creativity of men ages twenty-five to forty, regretted the comparative ineffectiveness of men over forty, and decried the complete uselessness of those over sixty years of age (Cole 1992). U.S. medicine’s pessimism regarding the capacities of the aged gave fuel to a broader social project that resulted
in the denigration of the old and their eventual withdrawal from the labor market. Physicians, however, were hardly alone in the scientific study of age-related differences in (in)capacity. Among those who documented statistical age differences in performance were Adolphe Quetelet, a Belgian mathematician; Sir Francis Galton, a British scientist, and G. Stanley Hall (Chudacoff 1989). Thus, the fruits of scientific rationality offered a justification for the administrative use of chronological age to create a standard for attributing incapacity to older adults.

**U.S. Civil War Pensions: Commensurating Age and Incapacity**

Public old-age support demonstrates the historical emergence of time-since-birth as the standard measure of age subsuming all other concepts. Lampham (chap. 5 in this volume) points to the way in which administrative practice standardized Hungarian laborers for work. Tellingly, administrative practices have also embraced chronological age as a process to standardize individuals efficiently and equitably for a morally legitimated withdrawal from work. In creating age-specific access to rights, responsibilities, and rewards, public systems of old-age support are critical to institutionalizing chronological age. Perhaps no institutional development embodies the creeping equation of chronological age and physical incapacity as clearly as the U.S. system of Civil War pensions (Tress 1986). In 1862, Congress passed legislation to provide for claims that arose from deaths and disabilities occasioned as a direct consequence of military service for the Union (Glasson 1918). Pension benefits were standardized—matched to the seriousness of the disability, as specified by lists of qualifying wounds and diseases. Although eligibility initially depended on objective criteria such as the loss of a limb or total blindness, eligibility was gradually broadened to include more ambiguous functional criteria that reflected general health conditions. For example, $15 per month was to be paid for a disability equivalent to the loss of a hand or foot, $20 for the inability to carry out light manual labor, and $25 for a disability that required the regular assistance of another person. The normal, sighted, healthy male with four intact limbs (from which pension beneficiaries derived) stands as a forbearer of the standard human whose elaboration Epstein (chap. 2 in this volume) analyzes.

In the case of chronic illness, local boards of examining physicians drew on their expertise to rate each disability with fractional exactitude. Incapacity was calibrated in terms of eighteenths of the disability for manual labor equivalent to the loss of a hand or a foot. This precision was illusionary, serving largely to obscure the lack of uniformity among local experts. According to the foremost historian of these pensions, William H. Glasson, the difficulties of the task and the variable expertise of the examiners were apt to result in "either the arbitrary or the absurd—and sometimes both." (1918, 138). One claimant who was rated independently by four local medical boards was judged to have no rattable disability by one board but was rated for disabilities worth $8, $17, and $24 per month by the other three (White 1958, 211). In short, the efforts to standardize disability ratings floundered on the inability to standardize the raters' practices.

Because veterans were an important political constituency, politicians were sympathetic to demands to liberalize eligibility and expand benefits. In 1890, legislation extended eligibility to anyone who had served in the U.S. army or navy for ninety or more days during the Civil War, who had been honorably discharged, and who suffered from a "mental or physical disability of a permanent character, not the result of their own vicious habits, which incapacitates them from the performance of manual labor in such a degree as to render them unable to earn a support" (Glasson 1918, 234). The new law guaranteed a pension to all veterans, except those who had health that was "practically perfect" (Sanders 1980, 142). Thus, Civil War pensions became a system of old-age support.

The commissioner of pensions was authorized to set benefit rates for disabilities that were not directly addressed by the law (Costa 1998). By 1873, the list of rated disabilities served not only to specify a dollar benefit but also as a comparative standard to determine the worth of disabilities not otherwise classified. Although the 1890 legislation did not mention age, the Pension Bureau applied age-based eligibility criteria. The commensurization of chronological age and functional age was clear in the instructions issued to the examining physicians by the commissioner of pensions: "A claimant who has reached the age of 75 years is allowed the maximum rate for senility alone, even where they are no pensionable disabilities" (Glasson 1918, 243). Even younger applicants could be readily determined to be disabled. "A claimant who has attained the age of 65 years is allowed at least the minimum rate, unless he appears to have unusual vigor and ability for the performance of manual labor in one of that age" (Glasson 1918, 243). Emphasizing that old age was but another medical condition, the instructions stated that "(the) effect of partial senility should be considered with other infirmities, where there are such, and the aggregate incapacity stated" (Glasson 1918, 243).

Thus, the administrative practices of the Pension Bureau equated *chronological* age with a specified degree of disability that, in combination with minor disabilities, would qualify the older veteran for a pension. By 1904, President Theodore Roosevelt's Executive Order #78 provided that a simple declaration of old age was sufficient evidence of incapacity, even in the absence of other disabilities. The Service and Age Pension Act of 1907 gave congressional blessing to this practice. Advancing chronological age was equated with increasing degrees of infirmity so that veterans sixty-two to sixty-nine were paid $12 monthly, those seventy to seventy-four were paid $15, and those seventy-five and older were paid $20.

The reach of pension eligibility and benefit standards based on chronological age classifications cannot be overstated. According to estimates by social reformer Isaac M. Rubinow (1913), two-thirds of native-born, white, 65-year-old men living outside the South were drawing a federal veteran's pension in 1913. In 1909,
the average annual Civil War pension amounted to 29 percent of the average annual earnings of factory workers in the United States (Tress 1986). Beyond sensitizing hundreds of thousands of pension recipients to the importance of chronological age, the use of chronological age served to legitimate rewards for one class of citizenry, even as it excluded Confederate veterans, former slaves, and recent immigrants. The Civil War pensions enabled aging veterans to withdraw from the labor force and to live independently of kin, thus marking the beginning of the modern institution of retirement (Costa 1998).

In embracing chronological age as the standard measure of late-life infirmity for Civil War veterans, the United States was in step with Germany, Great Britain, Denmark, and other states that imposed chronological age on their national old-age pension systems. Although most European states set a higher threshold of old age than did the U.S. Civil War pensions (Skocpol 1992), the cross-country comparison is apt. Scholars point to the Civil War pension to explain why the United States lagged three decades behind Great Britain in establishing a general system of old-age support. The veteran's pensions deflected political pressure for a universal system while fanning Progressive Party resistance to the political patronage and corruption it bred (Ikenberry and Skocpol 1987; Orloff 1988). Observing that the U.S. veteran's pensions cost three times more than the needs-based old-age pension of Great Britain, Rubinow (1913, 405) charges that the Civil War pensions constituted a covert social insurance scheme, "an economic measure which aims to solve the problems of dependent aged and widowhood."

More significantly from the perspective of standards, Union army pensions legitimized the administrative use of chronological age as an item of personal biography by embedding it in the everyday practices of an enormous and influential bureaucracy. Said by its commissioner in 1891 to be the world's biggest executive bureau, the Pension Bureau employed 3,000 clerks in the nation's capital, 3,800 examining physicians throughout the United States, and 400 agents in eighteen regional offices. Although U.S. Civil War pensions were not a universal entitlement, their remarkable reach and range magnified the importance of an administrative expedient—the impartial use of years of age to gauge incapacity, infer need, and establish entitlements. Chronological age was, therefore, the basis of an imposed standard promoting exactitude and regularizing the haphazard business of determining pension eligibility. The enormous scope and scale of chronological age as an administrative practice guaranteed that years in age had personal implications for millions of Americans.

**Old-Age Pensions in Ireland: Making Age Matter**

The year after the U.S. Congress wrote chronological age into Civil War pension legislation, the British Parliament established an old-age pension for British subjects ages seventy and older residing in the United Kingdom. The U.S. system demonstrates how chronological age, functional age, and benefit amounts were coordinated and commensurated in the context of an enormous bureaucracy and idiosyncratic local practices. The 1908 Old Age Pension Act in Britain demonstrates the impact that eligibility standards based on chronological age had on age-consciousness. In Ireland, a country characterized by extreme poverty, the pensions were coveted. According to one farmer, the pensions meant not only additional income but also added years of life. "To have old people in the house is a great blessing in these times because if you have one, it means ten bob a week and, if you have two, it means a pound a week coming into the house. . . . Not only that but it adds at least ten years to a man's life because the anticipation that each Friday he is to get ten shillings will cheer him up and keep him keen" (quoted in Arentsen and Kimball 1968, 120). Despite the strong incentive to qualify for a pension, establishing age-based eligibility proved difficult. Ireland did not have a civil birth registry prior to 1864. In the absence of proof of birth date, there was invariably a temptation to add years to life in order to qualify for a benefit.

Although church records were acceptable ways of establishing age, few people had these documents. Administrators were called on to determine age on the basis of such dubious criteria as physical appearance, local testimonials, or the individual's ability to recollect some significant historical event or natural disaster, such as a memorable "great wind." Comparing the censuses of 1901 and 1911, John Budd and Timothy Guinnane (1991) brilliantly demonstrate that the 1908 legislation was followed by increased awareness of chronological age. People who were once happy to round their ages to the nearest "0" or "5" moved toward greater accuracy in their age reporting. This greater precision characterized those we know to have been most vulnerable to age-heaping and casual reporting, namely, the old, the illiterate, and the laboring poor. Whatever they lacked in the way of personal resources to facilitate knowledge of chronological age, these people—being the most likely to qualify for a means-tested, old-age pension—were strongly motivated to employ an exact numerical age when they interacted with the welfare state. State interventions attaching importance to chronological age—the basis for an imposed standard—achieved a revolutionary change in the everyday accounting of personal biographies. Undoubtedly, they can also be credited for the standardization of the life course to the extent that workers began to time their labor force withdrawals to coincide with pension eligibility schedules and emergent retirement norms.

**Age Exactitude**

As the Irish case demonstrates, the use of chronological age for administrative purposes presupposes an administrative apparatus or some customary practice for recording all birth dates. Until the twentieth century, many births were unrecorded in the United States. Despite local record-keeping and informal entries in
Table 3.1. U.S. Census data collection on chronological age, 1790–2000

<table>
<thead>
<tr>
<th>Census year</th>
<th>Age data collected</th>
<th>Enumerative instructions</th>
</tr>
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<tbody>
<tr>
<td>1790</td>
<td>16 and upward, under 16</td>
<td>Free white males only</td>
</tr>
<tr>
<td>1800</td>
<td>Under 10 years of age, 10 and under 16, 16 and under 26, 26 and under 45, 45 and upward</td>
<td>Free white persons only</td>
</tr>
<tr>
<td>1810</td>
<td>Same as 1800</td>
<td>Free white persons</td>
</tr>
<tr>
<td>1820</td>
<td>Same as 1800</td>
<td>Free white persons</td>
</tr>
<tr>
<td>1830</td>
<td>Plus, 16 and under 18</td>
<td>Free white persons</td>
</tr>
<tr>
<td>1850</td>
<td>Under 10, 10–24, 24–36, 36–55, 55–100, 100 and upward</td>
<td>Slaves and free colored persons</td>
</tr>
<tr>
<td>1860</td>
<td>Specific age of each person at his or her last birthday; fractional parts of year for child under 1 year (one month, one-twelfth).</td>
<td>If the exact age in years cannot be ascertained, insert a number which shall be the nearest approximation to it.</td>
</tr>
<tr>
<td>1870</td>
<td>Same as 1860</td>
<td>&quot;Where the age is a matter of considerable doubt, the assistant marshall may make a note to that effect.&quot;</td>
</tr>
<tr>
<td>1880</td>
<td>Same as 1860</td>
<td>&quot;Do not accept the answer 'Don’t know,' but ascertain as nearly as possible the exact age of each person. The</td>
</tr>
<tr>
<td>1890</td>
<td>Age at nearest birthday in whole years; for children less than 1 year on June 1, age is in twelfths of a year.</td>
<td>Number which shall be the nearest approximation to it.&quot;</td>
</tr>
</tbody>
</table>

Although the United States did not move to ensure uniform reporting of the age of individuals until the twentieth century, the census of population permitted us to trace the federal government's increasing desire for age data. By 1840, for instance, the federal government had introduced a standard birth certificate. Where the U.S. Bureau of Census established a Birth Registration Area in 1910, only certain areas of the country began to require that all births be reported to the federal government. Federal government interest in chronological age dates back to the earliest census of 1790. As Table 3.1 indicates, the collection of chronological age as a vital statistic became increasingly important. Beginning with the census of 1850, the collection of age data in all classes was required, a practice that continued into the early twentieth century.

In the first census of 1790, free white males were counted as being one year old if born on or before January 1 of the year preceding the census. In the second census of 1800, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the third census of 1810, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the fourth census of 1820, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the fifth census of 1830, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the sixth census of 1840, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the seventh census of 1850, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the eighth census of 1860, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the ninth census of 1870, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the tenth census of 1880, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census. In the eleventh census of 1890, free white males were classified as being over one year old if born on or before January 1 of the year preceding the census.
<table>
<thead>
<tr>
<th>Census year</th>
<th>Age data collected</th>
<th>Enumerator instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>Date of birth</td>
<td>general tendency of persons in giving their ages is to use round numbers, as 20, 25, 30, 35, 40, etc. If the age is given as 'about 25,' determine, if possible, whether the age should be entered as 24, 25, or 26. &quot;The object of this question is to help in getting the exact age to years of each person enumerated. Many a person who can tell the month and year of his birth will be careless or forgetful in stating the years of his age, and so an error will creep into the census. This danger cannot be entirely avoided, but asking the question in two forms will prevent it in many cases.&quot;</td>
</tr>
<tr>
<td>1910</td>
<td>Age in completed years at last birthday prior to April 15. For child less than two, age in twelfths (e.g., 1 3/12).</td>
<td>&quot;An answer given in round numbers, such as 'about 30,' 'about 45,' is likely to be wrong. In such cases endeavor to get the exact age.&quot;</td>
</tr>
<tr>
<td>1920</td>
<td>Same as 1910, except age for child under 5 to be reported in complete years and months.</td>
<td>&quot;(When an age ending in 0 or 5 is reported, your should ascertain whether it is the exact age. If, however, it is impossible to get the exact age, enter the approximate age rather than return the age as unknown. . . . Some difficulty may be met in ascertaining the exact ages of Indians, as they frequently reckon their ages from notable events occurring the history of the respective tribes. Endeavor to ascertain the years in which these notable events occurred, and with a little calculation on your part you should be able to ascertain the exact age of each Indian.&quot;</td>
</tr>
<tr>
<td>1930</td>
<td>Same as 1920</td>
<td></td>
</tr>
<tr>
<td>1940</td>
<td>Same as 1930</td>
<td></td>
</tr>
<tr>
<td>1950</td>
<td>Same as 1940; if under one, birth month entered.</td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>Month and year of birth at last birthday</td>
<td>Only quarter of birth transcribed</td>
</tr>
<tr>
<td>1970</td>
<td>Same as 1960</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>Same as 1970</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>Age and year of birth</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>Age on April 1, 2000; month, day, and year of birth</td>
<td></td>
</tr>
</tbody>
</table>

lation. Many, if not most, individuals falling in these categories of advanced old age were undoubtedly old people vastly overstating their years, unbridled by birth records or by strong conventions demanding that a person know and report his or her age exactly.

In 1850, the census of population moved away from age categories to require individuals to report numerical age as of the last birthday. In the 1830 census, the age item—asking for the age at the nearest, not last birthday—proved confusing and was subsequently abandoned. In a further quest to achieve precision in age reports, specifically to prevent "careless or forgetful" reports of age, the 1900 census inquired not only about age at last birthday but also about date of birth. After abandoning the query about birth date in 1910, the Census Bureau in 1960 returned to asking about birth date (i.e., month and year) as well as age. In 1990, the census asked only the year of birth in addition to age. Census 2000, however, extended the quest for greater and greater precision in chronological age into the twenty-first century. In addition to determining age on April 1, 2000, the 2000 census asked for month, day, and year of birth.

Recognizing that some people did not know their exact age, government officials developed standard practices to deal with the problem. In 1890, enumerators were encouraged to enter an approximation. The census-takers' instructions cautioned that people round their ages to the nearest 0 or 5, and the enumerators were urged to reject "about 25" in favor of a more accurate answer. In 1910, there were special instructions for Indians, who sometimes gauged their ages with reference to historical events. Anticipating the "historical calendar" adopted by later demographers working in less-developed countries (Scott and Sabagh 1970), enumerators were told to determine the year of any tribal event mentioned in order to calculate an exact age.

Acknowledging the errors in age reports, the Bureau of the Census published its first comprehensive study of age statistics in 1994 (Young 1994). As the study pointed out, accurately classifying the population by age was essential to the work of the state. In addition to gauging the numbers of potential voters, workers, and soldiers, these statistics provided estimates of fertility (in the absence of systematic birth records) and contributed to the assessment of poverty, crime, literacy, and mortality. Serious analyses of errors in age reports by sex, region, race, and nativity were presented. So were population tabulations by single years of age—carefully adjusted to smooth out the irregularities introduced by rounding, heaping, and other reporting errors. The publication not only made clear the importance of accurate age reports but also demonstrated for the first time how demographic expertise in scientific observation and statistical analyses could be harnessed to improve the quality of census age data as it was solicited in the field and tabulated in the office.

While chronological age was becoming the basis for the standards for the distribution of rights, responsibilities, and entitlements, the state was also at work to create the birth-reporting infrastructure that would permit future generations to establish exact age. The Census Bureau, however, was charged with collecting age data even before literacy, the birth-registration system, and the public's age-consciousness were sufficiently widespread to assure that all people knew their exact chronological age. Successive censuses demonstrated the growing importance of chronological age by extending age inquiries to the entire population and by demanding progressively more detailed information. They also showed an increasing sensitivity to the seriousness of errors in age reports. Census-takers received formal instructions on how to assign ages to those who did not know their age, and how to encourage greater accuracy from those who did. Accuracy remains a concern with the census today, and considerable effort is devoted to formatting the self-administered questionnaires so as to avoid careless errors and misunderstandings. Although contemporary Americans still make errors in reporting age, chronological age is now a standard product and uncertainty about one's chronological age is relatively uncommon.

Breakdowns

It does not really matter whether people know their chronological age unless they bump up against bureaucratic systems that demand chronological age. In telling the story of refugees in California, Anne Fadiman (1997) contrasts a Hmong woman's limited knowledge about her age with her daughter's birth in a U.S. hospital—a birth that is recorded meticulously and to the minute. Although this medical quest for age exactitude extends back to the time of conception, it was not possible to assign a gestational age to the newborn because the mother had not received any prenatal care. When she delivered her baby, the mother's birth date was recorded as October 6, 1944. On other hospital visits, her birth date was recorded as October 6, 1942, or October 6, 1926. Unclear as she was about the year, this Hmong mother was very certain about the month. Marking events by agricultural periodicities, her parents had informed her that she had been born in the month when farmers stacked their rice stalks and gave their opium crops a second weeding. Certainly, age would have been a salient concern in her village, but functional age (e.g., being old enough to help with crops), not chronological age, was what mattered. The mother's birth year was a fabrication, a matter of indifference in her Laotian village, but a necessity in U.S. society, where everyone must know his or her birthday.

The Hmong case serves to demonstrate that the requirements for age exactitude do not always demand age accuracy. The hospital staff apparently failed to notice or care about the inconsistencies in the birth dates they had recorded. No one noted that a 1926 birth year implied that the mother was fifty-five years old at the birth of her next-to-last child. Nor, it seems, did any U.S. immigration official question the Hmong refugee who reported July 19 as the birth date for each of his
nine children, albeit for nine consecutive years (Fadiman 1997). In everyday practice, even the best practitioners, charged with collecting the raw material of age classification, must work around the occasional uncertainty or inconsistency. Any vaguely reasonable, if highly specific, date is sufficient to meet most bureaucratic requirements. The expedient work practice is to ignore all but the most egregious inconsistencies in ages or birthdays. This practice is facilitated by the fact that few people are on the look out for fabricated ages, given the widespread conviction that everyone knows his or her chronological age.

The Hmong people employed the uncertainty about their ages to strategic ends. In Thai refugee camps, they understated the chronological age of elderly parents under the (mis)belief that the United States would turn away older immigrants (Fadiman 1997). They overstated the ages of their children in the refugee camps so that they could get larger food rations, but in the United States, they understated the youngins’ ages so that they could remain in school longer. Who is there to object when age is truly unknowable or when the costs of obtaining precise information are much higher than what might be gained from the knowledge? Sometimes, however, the stakes are higher, the problems more frequent, and informal work practices will not suffice. Sometimes, more formal patches must be crafted for the classification systems founded on chronological age standards. When age is the basis for important standards, it is necessary to have standards for age.

Standards for Age

What happens in an age-conscious society when an individual does not know his or her exact chronological age—or at least cannot establish it to the satisfaction of authorities? Given the centrality of chronological age as a classifying mechanism underpinning standards, particularly in administrative contexts, there must be standard operating procedures to deal with cases in which ages are unknown, unreported, inconsistent, or implausible. The format and wording of items on questionnaires and administrative forms are subject to careful evaluation to increase response rates and improve the reliability of age reports. National statistical bureaus employ various methods to smooth the lumpy aggregate age distributions that arise when census respondents round their ages to culturally preferred digits (Shryock and Siegel 1973). In statistical analyses, individuals who fail to report an age will have an age imputed or assigned to them, according to an algorithm based on the average age of the population, the age of people of like characteristics, the ages of related household members, and so on. In some instances, the age of individuals must be known with a high degree of certainty, and it is not sufficient to rely on self-reported age alone.

As proof of age for benefit eligibility, the U.S. Social Security Administration requires evidence of a person’s birth date. The preferred evidence is that which is recorded prior to the fifth birthday in the form of either a public birth record or a religious record of birth or baptism. Absent this preferred documentation, Social Security lists eighteen other documents that may be used to establish date of birth. As shown by the following list, the diversity of records giving birth date or age is quite extraordinary. Collected for a host of educational, commercial, private, medical, religious, civil, military, and economic purposes, these documents underscore the widespread use of exact chronological age and birth dates in U.S. life. Ironi- cally, the Census Bureau, the agency that long struggled with its own problems in determining exact age, issues official transcripts from its earlier census records that may be used to establish age in order to qualify for social security and other retirement benefits. Social Security’s list of potential age evidence is not exhaustive, and other detritus of the life course may also be used to validate the essential biographical information of chronological age.

Records that may be submitted to the Social Security Administration to prove date of birth (Social Security Administration 2001)

- Public record of birth established before fifth birthday
- Religious record of birth or baptism established before fifth birthday
- School record
- Census record
- Bible or other family record
- Religious record of confirmation or baptism in youth or early adult life
- Insurance policy
- Marriage record
- Employment record
- Labor union record
- Fraternal organization record
- Military record
- Voting record
- Vaccination record
- Delayed birth record
- Birth certificate of child showing age of parent
- Physician’s or midwife’s record of birth
- Passport
- Immigration record
- Naturalization record

The layering of evidence on age—collected over the life course by different parties for disparate purposes—introduces the possibility of conflicts and inconsistencies between information from different sources. Because it is necessary for people to establish chronological age in order to establish benefit eligibility, the Social Security Administration has developed administrative mechanisms as well as evidence policies. These are designed to adjudicate the breakdowns in classificatory procedures that arise from uncertainties or conflicting evidence about the chronological age of a claimant. For example, a long-standing practice has been to give the greatest weight to the oldest records of chronological age. Whatever their original purpose, the earliest layers of age records are least likely to be tainted by the
expediency of meeting the eligibility requirements for old-age pensions. (As we will see, age may certainly be falsified early in the life course to meet other objectives.) The probative value of different records has increasingly been grounded in technical expertise. Since 1968, the relative validity and reliability of various types of documents has been determined with statistical research based on Evaluation and Measurement System (EMS) data. Despite this rationalization of practices, procedures, and policies, some cases are not resolved by mechanical decision-making rules.

Administrative case law offers a window on the landscape of chronological age as lived by individuals, recorded by sundry agencies, and adjudicated by the courts. In the case of "W," recent evidence of chronological age was favored over the earlier records normally preferred (Social Security Administration 1960). Indeed, relational age was used to establish a birth date that the claimant had hardly ever asserted over her long lifetime. In 1957, "W" sought to prove that she was born in 1895 and had reached sixty-two, the minimum eligibility age for a widow's pension. Over the years, she had claimed an 1899 birth date, notably in her earlier Social Security application for benefits as the widowed mother of a dependent child. Immigration arrival records from 1911 listed her at eleven years of age, implying that 1899 was indeed her birth year. However, "W" explained that her mother had passed each of her six children off as younger in order to save money on their steamship fares. Backing her contention was the fact that her youngest sibling must have been older than the age of three recorded at arrival since her mother and father had been separated for five years. Affidavits from her siblings backed up her claim that she was born in 1895. Although "W" was the second-born child (her birth order was established in the 1911 arrival records), birth dates from the school records of the fourth, fifth, and sixth children ranged from 1899 to 1906, suggesting that "W" had been born sometime before 1899. Last, her optometrist certified that "W" had owned up to a birth date of December 24, 1895, but only because he had insisted "that she tell him her exact age because of the medical consequences" (quoted in Social Security Administration 1960, 77). Thus, in a life course in which birth date was apparently marked by both strategic use and selective salience, a careful parsing of information on chronological and relational ages led to a rejection of the bureaucratically preferred early records in favor of more recent evidence.

In addition to inconsistencies over time, individuals may have more than one officially recognized chronological age depending on the jurisdiction. One claimant for old-age benefits produced two decrees from Greek courts establishing his birth date as June 10, 1893 (Social Security Administration 1965). The Social Security examiner determined the claimant's birth date was June 10, 1901, based on the biographical information he had given a number of times over three decades. Believing that the Greek proceedings were undertaken to bolster the claimant's application for benefits, the U.S. District Court held that the Social Security Administration, although obligated to weigh the decrees as evidence, was not bound by Greek court proceedings to which it had not been a party. Whereas some age uncertainties are handled on a case-by-case basis, others constitute a large enough problem to require a formal bureaucratic patch for an entire class of individuals. For example, the Social Security Administration has had a special policy for determining the age of Holocaust survivors (Social Security Administration 1981). During World War II, the Nazis sentenced persons, ages eighteen to thirty, to work camps and others to death camps. Some victims of Nazi persecution misstated their ages in order to survive. Later, they continued to use these incorrect birthdates, even on official records of their immigration to the United States. When birth records were lost or destroyed in the war, these immigration records constituted the earliest (and generally preferred) evidence of age. Recognizing the hardship posed for the elderly who could not demonstrate their eligibility, the Social Security Administration implemented a special procedure. An individual first established his or her status as a Holocaust survivor (e.g., with such evidence as tattoo numbers, German passports stamped with a red J, or evidence of wartime residence in one of twenty-four countries as a member of a group marked for extermination). If the Social Security Administration was unable to obtain preferred evidence of the Holocaust survivor's age from the country of birth, then statements of friends, family, or even the claimant were deemed acceptable to establish true age.

In short, unique biographical and historical situations render some individuals "ageless." These uncertainties about chronological age constitute broadsides to classification systems that rely on chronological age as the basis for standards that assign rights, verify entitlements, and enforce responsibilities. Although an approximation of exact age may be adequate in some instances, there are other circumstances in which ambiguity must be eliminated, even at some cost to the participants. As in the case of the Social Security Administration, when birth records are unavailable, a host of other records may come into play to establish an official, and hence "true," chronological age. The problem of assigning age, however, is by no means limited to pension systems, older adults, developed countries, or written documents for adjudication. In the less-developed world, for instance, the law may specify a medical examination to determine whether the age of a young victim is consistent with a criminal charge of child sexual abuse (where "child" is based on some chronological definition such as "less than sixteen years") (République Démocratique du Congo 1970). In a host of circumstances around the globe in which the knowledge of chronological age is essential, the usefulness of exact chronological age elicits procedural patches that facilitate the functioning of age-based systems. Chronological age as a practice demands attention to chronological age as a product.
The Triumph of Chronological Age

Once a fact known only by the privileged few, an individual's chronological age emerged as an essential piece of information standardizing the personal biography. Today, chronological age determines the timing and progression of individual lives via the many informal age norms and formal age rules that link people to age-graded social institutions. In the past, these social norms were based on shared understandings of functional and relational age differences, but chronological age has come to be preferred over other measures of age-based (in)capacities, needs, and resources. Chronological age has been naturalized and is now so widely accepted as a rightful delimiter that it is invisible even as it is omnipresent. It is scarcely contested. Consistent with the moral power of standards noted by Lengwiler (chap. 4) and Lampland (chap. 5 in this volume), the use of chronological age in various standards embodies moral assessments and brings moral legitimacy to a variety of practices.

Although age systematically organizes the relationships of individuals within a host of social institutions across the life course, the historical movement to greater age exactitude in the United States must be read as the triumph of the imposed age-based standards traced to the state and administrative practices. Embedded in administrative processes, the state also implemented the universal system for birth recording that provides Americans with an essential product—incontrovertible evidence of their date of birth. The processes of the state, however, established the incentives to reckon age accurately.

Although my discussion has emphasized chronological age as a classificatory criteria establishing the standards for pension eligibility, exact age is also used to classify individuals into those who can and cannot vote, drive, and be tried as an adult in criminal court. It identifies people who are or are not obligated to register for the draft or to attend school. As testimony to the grassroots adoption of the years-of-age standard, chronological age in personal ad proclames who is and who is not an acceptable romantic partner. By conferring rights and responsibilities, chronological age constitutes a stratification regime, albeit one in which mobility is systematic and predictable—assured by the passage of years. In concert with social institutions, chronological age standardizes the course of American lives. This is hardly a unique phenomenon but, rather, an instance of a more general process explored throughout this book; contrary to an individualizing trend evident since the Enlightenment, human beings are routinely classified and standardized—by chronological age as surely as they are for labor (Lampland, chap. 5), for insurance eligibility (Lengwiler, chap. 6), and for medicine (Epstein, chap. 2 in this volume).

Remarkable in its scale and scope, chronological age can standardize personal biographies because age is the metric used in standards in diverse contexts. Proof of age, for instance, is essential to establishing eligibility for Social Security and other old-age benefits. Because age is the basis for standards incorporated in ra-