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## 7

# The Rise of the Leisured Class

Increased means and increased leisure are the two civilizers of man.

Disraeli (1872)

Youth for work and age for leisure.

Slogan of the Townsend movement

Increasing numbers of retirees are citing a preference for leisure as their main motivation for leaving the labor force. Among men who began collecting Social Security benefits at age sixty-five, in 1941 and in 1951 only 3 percent stated that they had retired because they preferred leisure to work, and these tended to be the beneficiaries with the highest incomes (Stecker 1955; Wentworth 1945). By 1963 the figure was 17 percent and by 1982 48 percent. Among men who began collecting Social Security benefits at ages sixty-two to sixty-four, in 1968 17 percent stated that they had retired because they had wanted to and in 1982 38 percent (Palmore 1964; Sherman 1985). Morse and Gray (1980, 75) found that cohorts retiring in the late 1970s were more likely to state that they had worked long enough as an explanation for retirement, compared to cohorts retiring in the late 1960s, even though they felt less financially secure on retirement.

An increased proportion of men may be expressing a desire to retire to enjoy leisure, not because their numbers are actually increasing, but because it has become socially acceptable to do so. Alternatively, demand for leisure may now be greater because incomes are larger, because there are more forms of leisure from which to choose, or because the cost of recreational goods has fallen. In chapter 3 I showed that the elasticity of retirement has declined since 1900, speculating that this decline was driven in part by an increased demand for leisure fueled by rising incomes and by the increase in the variety of low-cost leisure-time activities. Leisure may now be attractive and inexpensive enough that a decrease in income will not lead to a huge increase in labor force participation rates. Conversely, an increase in income will not lead to a huge decrease in labor force participation rates because income is no longer such an important input to the enjoyment of leisure. This chapter investigates whether income has become a less important input to the enjoyment of leisure. If it

has, then the typical worker is increasingly more likely to look forward to retirement.

## 7.1 Trends in Leisure Consumption

Most social scientists define leisure as the time spent in activities unrelated to employment, housework, or maintenance of self. Leisure is thus defined purely in terms of free time and may be either interesting or dull, depending on the activities carried out within that time. When the activity is pleasurable, it is considered recreation. Recreational activities may, therefore, consist of daydreaming, walking in city parks, socializing with neighbors, reading, watching television, or skiing. Some activities, such as daydreaming, require relatively few expenditures, whereas others, such as skiing, may require considerable outlays. The ability to engage in recreational activities depends, therefore, on the availability of both time and money.

The time available for recreational activities has increased dramatically. Not only have labor force participation rates of older men been decreasing since 1880, but, since the end of the nineteenth century, the average workweek has fallen, and paid vacations, holidays, sick days, and personal leave have increased. Between 1900 and 1920 ten hours were eliminated from the average workweek, and by 1940 the forty-hour workweek had been put in place. Although the decline in hours decelerated after 1940, paid vacations, holidays, and sick leave increased. In the 1910s fewer than 30 percent of male wage earners reported having a vacation, and that was not paid (Bevans 1913; and U.S. Bureau of Labor Statistics 1986). By 1940 25 percent of union workers received a paid vacation and by 1957 92 percent. Today, 96 percent of both union and nonunion workers receive a paid vacation that has grown in length from the one week received in 1940 (Owen 1969; Wiatrowski 1994). This trend has continued in recent times. Among employed males aged eighteen to sixty-four total hours of work declined by 14 percent between 1965 and 1985 and hours spent at work, including commute time and work breaks, declined by 17 percent. Although increasing participation rates among women have increased women's average paid market time, total work hours of couples still has fallen (estimated from Converse and Robinson 1980; and Robinson 1993).

Around 1910, fifty-five-hour workweeks were the norm for manufacturing workers, their wives worked even longer in nonmarket activities, and only the rich had both the time and the money to pursue pleasure.<sup>1</sup> In fact, one possible interpretation of the strongly backward-bending labor supply curve of early twentieth-century workers is that, because workers had so little nonwork time, any increases in income were automatically used to purchase increased leisure (Whaples 1990). The diminution of the degree to which the labor supply curve is backward bending suggests that workers today are no longer so time constrained. Early surveys indicate that, at the turn of the century, workers earning low wages spent little time on recreation relative to better-paid workers (e.g.,

Bevans 1913). Such was the contrast between rich and poor that in 1899 Veblen was able to argue that, throughout history, the possession and use of leisure defined ruling classes (see Veblen 1994). Today, it is the rich who work the longest hours. The loss of leisure by the upper strata was noted more than thirty years ago by Wilensky (1963), who argued that the longer vacations and shorter work lives (because of delayed entry and often earlier retirement) of professionals and proprietors did not offset their longer work weeks and year-round employment. Using census data, Coleman and Pencavel (1993) found that, since 1940, the average hours of work for men in the labor force have remained roughly constant but that they have been rising for the well educated and declining for those with little schooling. Although time-use surveys, which provide a more accurate indication of hours worked than census data, show that the average workweek has grown shorter in the recent past, the workweek of men in a very broadly defined upper strata has grown longer relative to the workweek of men in the lower strata. In 1965, the work hours of employed men in the upper 35 percent of the household income distribution were the same as the hours of men in the bottom 10 percent of the income distribution, whereas in 1985 the work hours of men in the top 35 percentile of the income distribution were 1.2 times greater than those of men in the bottom 10 percentile (calculated from Converse and Robinson 1980; and Robinson 1993).<sup>2</sup>

Another measure of the importance of income to the enjoyment of recreation is the fraction of people within an income class engaging in a given recreational activity. Although numbers are almost impossible to obtain, specific cases can be cited. Automobile touring was initially an exclusive prerogative of the rich, largely because of the expense of upkeep and operation. As president of Princeton University, Woodrow Wilson decried the motorist as “a picture of the arrogance of wealth, with all its independence and carelessness,” and warned that “nothing has spread socialistic feeling in this country more than the use of the automobile” (quoted in Dulles 1965, 313–14). But automobiles diffused rapidly to the general population, and by the 1940s half of all households owned an automobile. Innovations in recreational vehicles followed those in automobiles. Before World War I, only the wealthy toured the countryside in custom-built “house cars,” whereas, by the 1930s, fully furnished house trailers became available to the middle class, and, from the 1950s on, the production of recreational vehicles developed into a major industry. Like the car, golf also began as a prerogative of the rich. Club memberships, caddy fees, clubs, and balls were all expensive, but the growth of public recreational facilities, which almost tripled the number of golf courses from 1921 to 1930, led authors to write of “the democracy of golf” (Grantland Rice in *Collier's*, cited in Dulles 1965, 359) as early as 1928. Similar changes were witnessed in other sports as well. The number of public swimming pools more than tripled, and the number of baseball diamonds more than doubled, from 1921 to 1930 (Series H 849–861, U.S. Bureau of the Census 1975, 398). The increasing homogenization of leisure has been noted before. Listening to the

radio was the most popular amusement in every pre–World War II study of leisure-time activities. Today, television is the dominant activity, and the percentage of spare time spent on television is fairly constant across income groups.<sup>3</sup>

Examining trends in the fraction of individuals engaged in a given recreational activity will underestimate the extent to which recreational activities have become affordable to individuals even in the lowest income groups. Technology and a mass market have made entertainment “superstars” available to all (Rosen 1981). Sports events that could barely be seen from stadiums can now be seen from many angles in living rooms at virtually no cost. Music is no longer provided mainly by such musical instruments as guitars or the family piano, an expensive piece of furniture; rather, it comes from a noted artist on a relatively inexpensive stereo. Entertainment through technology has been increasingly available for many decades. In the 1930s, the manager of a chain of theaters in Kentucky commented, “Radio is successfully competing with the theatre. Hard times have added millions of persons to the radio audience. You can get Eddie Cantor on the air for nothing. It costs you 50 cents or more to get him at the theatre” (quoted in Braden 1988, 119). If the more elusive nature of entertainment goods, such as the possibility of hearing a noted artist, could be quantified, then the price of entertainment has fallen tremendously and access increased enormously.

Finally, expenditures on recreational goods indicate whether recreation is affordable to all. In the late 1880s, less than 2 percent of household expenditures were devoted to recreation, approximately 75 percent going to food, shelter, and clothing. By 1917, the budget share for food, shelter, and clothing had fallen to less than 70 percent, and the share for recreation had risen to 3 percent. The former continued to decline—to less than 60 percent by the mid-1930s and to less than 40 percent by 1991—while the latter, however, continued to rise, reaching 5 percent in 1972 and 6 percent in 1991 (see table 7.1).<sup>4</sup> Estimates of the budget share of recreational expenditures based on the market value of purchases of goods and services by individuals and nonprofits are higher but follow the same trend (see fig. 7.1).<sup>5</sup>

Whether recreation is the prerogative of the rich can therefore be measured by the relative expenditure share of rich and poor households devoted to recreational goods. If a good takes up a larger share of the budget of better-off households, then access to recreational goods is limited to higher-income households. A good that takes up a larger share of the budget of better-off households is defined as a luxury. The best way to determine whether a good is a luxury is to estimate expenditure elasticities or Engel curves. These are readily calculated from the surveys of family income and expenditures that have been available since 1888. Provided that recreational expenditures and retirement are complements, the decline in retirement elasticities should be accompanied by a decline in recreational expenditure elasticities. I will show that recreational expenditure elasticities have declined and will argue that sev-

**Table 7.1** Budget Shares for Specific Items (%)

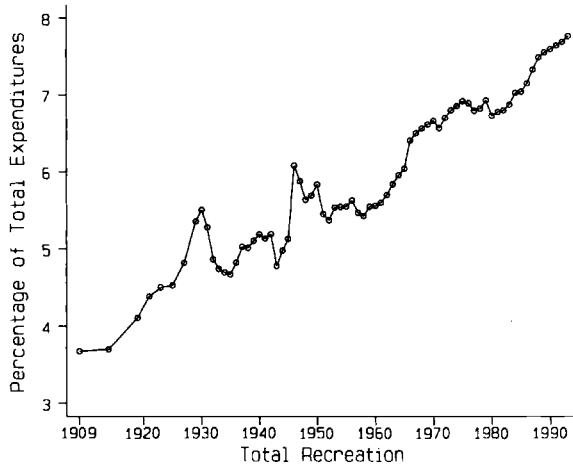
Item	1888-90	1917-19	1934-36	1950	1972-73	1991
Food	44.5	39.2	34.7	30.7	20.7	14.4
Shelter	13.7	13.6	10.9	10.6	16.2	17.5
Apparel	16.7	16.2	10.9	11.5	5.7	5.9
Utilities	6.0	5.4	7.4	4.2	5.5	6.7
Furniture and equipment	3.2	3.9	4.1	7.1	3.8	4.1
Transportation		3.0	8.5	13.8	16.1	17.4
Health	3.3	4.5	4.0	5.1	5.8	5.2
Education		0.4	0.5	0.4	0.7	1.5
Recreation	1.9	3.2	3.5	4.5	4.6	5.6
Other	10.7	10.6	15.5	12.1	20.9	21.7
Number of observations	6,716	12,817	14,469	7,007	19,975	97,918

*Note:* Estimated from the Department of Labor's Cost of Living of Industrial Workers in the United States and Europe, 1888-1890 (U.S. Department of Labor 1986); the Bureau of Labor Statistics's Cost of Living in the United States, 1917-19 (U.S. Department of Labor, Bureau of Labor Statistics 1986); the Survey of Money Disbursements of Wage Earners and Clerical Workers, 1934-1936 (Williams 1941), covering families of employed workers in cities of 50,000 or more; the Study of Consumer Expenditures, Incomes, and Savings (U.S. Bureau of Labor Statistics 1956), covering wage-earner and clerical worker families in cities of 2,500 or more; the Survey of Consumer Expenditures, 1972-1973 (U.S. Department of Labor, Bureau of Labor Statistics 1987); and Consumer Expenditures in 1991 (U.S. Department of Labor 1992). The shelter category includes only rent in 1888-90. Reading materials are included in the recreation budget share.

eral factors account for this change, including the secular increase in income, the increasing public provision of the complements of recreational goods, and technologically driven price declines.

Expenditures are, of course, a very narrow measure of recreational consumption. Many of the retirees interviewed in the late 1930s as part of the WPA Life Histories Collection reported that they spent their time "visiting friends," an activity that requires relatively few expenditures. Nonetheless, growing evidence of the complementarity of recreational goods with leisure (Abbott and Ashenfelter 1976; Owen 1969) suggests that the value of leisure depends on the goods enjoyed during leisure.

Expenditures on recreational goods reflect some very important aspects of the recreational experience, including "relief in unconsidered muscular action," such as the possibility of chasing or swatting balls, and the ability to experience illusions.<sup>6</sup> Physical activity has been stimulated by the provision of public recreational facilities and the development of the automobile, which brought recreational facilities within easy reach. Technological improvements have enabled the creation of better illusions. In 1791, a London bookseller who traveled across America remarked that the "poorer sort of farmers, and even the poor country people in general, who before . . . spent their winter evenings in relating stories of witches, ghosts, hobgoblins, etc. now shorten the winter



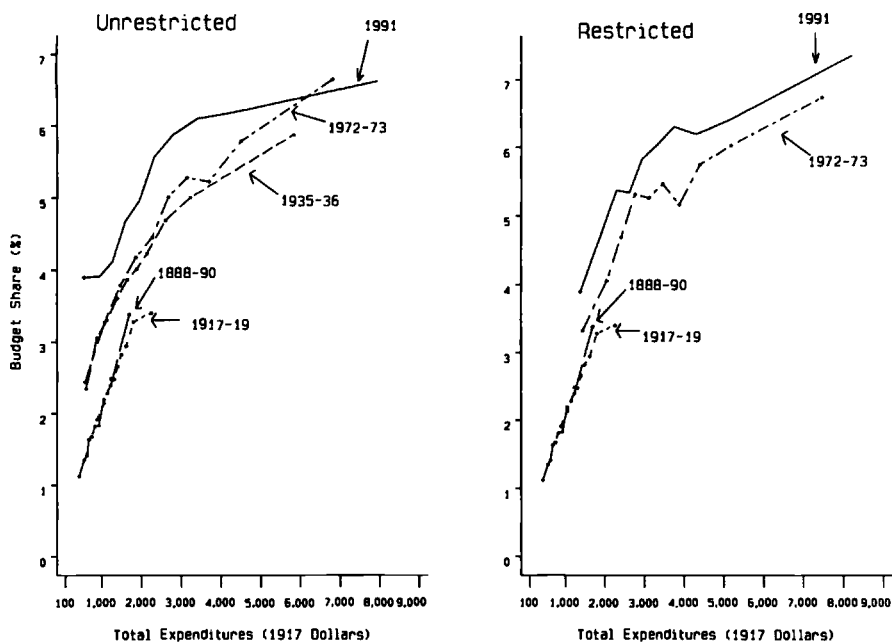
**Fig. 7.1 Recreational budget share, 1909–93**

Source: Calculated from Dewhurst and Associates (1995) and U.S. Department of Commerce (1966, 1995).

night by hearing their sons and daughters read tales” (cited in Braden 1988, 77). A founder of Luna Park, one of the turn-of-the-century Coney Island amusement parks, described his attempt to create “a different world—a dream world, perhaps a nightmare world—where all is bizarre and fantastic—crazier than the craziest part of Paris—gayer and more different from the everyday world” (cited in Kasson 1978, 66–69). Luna Park re-created such disasters as house burnings, the destruction of Pompeii, the 1902 devastation of Martinique by a volcano, the Johnstown flood of 1899, and the Galveston flood of 1900. New goods soon provided better and cheaper illusions. A Coney Island resident remarked, “Once upon a time Coney Island was the greatest amusement park in the world. The radio and the movies killed it” (cited in Kasson 1978, 112). Television, described as “the radio with eyes, . . . the press without the travail of printing, . . . movies without the physical limitations of mechanical reproduction and projection” (John Houseman in the May 1950 *Harper's*, cited in Braden 1988, 120), was able to provide even better illusions.

## 7.2 Engel Curves

The relation between income and budget share is given by Engel curves. These relate the demand for a commodity to income or total expenditures at constant prices. At a specific time  $t$  the budget share of good  $i$  is therefore related to total expenditures through a functional form,  $w_{it} = f_{it}(z)$ , where prices have been absorbed into the functional form. Engel curves for the years 1888–90, 1917–19, 1935–36, 1972–73, and 1991 are shown in figure 7.2. These



**Fig. 7.2** Budget share of recreation and total expenditures in 1917 dollars, 1888-90, 1917-19, 1935-36, 1972-73, and 1991

*Note:* Estimated from Consumer Expenditure Surveys for 1888-90, 1917-19, 1935-36, 1972-73, and 1991. In the right-hand-side panel households in 1973-73 and 1991 were restricted to those in the labor force, at neither extreme of the income distribution, and under age sixty-five to ensure comparability with earlier surveys. The curves were estimated by taking averages within each decile of total expenditures.

curves show that, if only income were to change over time, consumers would remain on the same Engel curve but might be at either a steeper or a flatter part of the curve. But more than income has changed. Recreation is a time-intensive activity, and wages have increased. Prices have also changed, whether because of technological change or the public provision of complementary goods. Not only have technological advances lowered the price of existing products, but they have also introduced new products that have lowered the price of elusive goods, such as listening to a piece of music or watching a comic skit. The price for a quality-adjusted quantity has fallen, and the variety of recreational goods has increased. Consumers have therefore moved to Engel curves with both different intercepts and different slopes. At a single point in time, the Engel curve therefore indicates how egalitarian consumption is, but it does not accurately portray how consumption would change over time.

In a single cross section budget shares can be related to total expenditures under the assumption that all consumers face the same price. Becker (1965) argues that, when households combine time and market goods to produce com-



modities that they value, they face different commodity prices because their earnings differ. Thus, because recreational goods are time intensive, their high relative price will lead consumers to substitute away from them, and the effect of income on these goods will be understated. If the time costs of the wealthy have increased relative to those of the poor, then, because the wealthy are no longer consuming as much recreation as they would have if their time costs had remained the same, we will observe that Engel curves have become less steep over time. I will return to this issue when I discuss explanations of changes in the steepness of Engel curves.

The slope of Engel curves may also be affected by the shift from nonmarket recreational goods, such as baseball leagues and libraries, to market recreational goods, such as private gyms and paperback books. If the shift from nonmarket to market goods has occurred disproportionately among those with lower incomes, then Engel curves estimated using market goods will become less steep over time, but the slope of the “true” Engel curves may remain unchanged. This issue will also be addressed later.

Figure 7.2 shows that, at the beginning of the century, when the slope of Engel curves was very steep, the recreational budget share rose sharply with income, whereas today the rise is more gentle. The distribution of budget shares was less egalitarian, and recreational goods were luxuries, their consumption limited to the wealthy few with sufficient income to purchase them. Whether a good is a luxury is measured by the expenditure elasticity, defined as  $e_i = \partial \log f_i(z) / \partial \log(z)$ , with an expenditure elasticity greater than one indicating that the good is a luxury. The greater the expenditure elasticity, the more of a luxury the good is. I will estimate recreational expenditure elasticities for 1888–90, 1917–19, 1935–36, 1972–73, and 1991 using the surveys described in the remainder of this section.

The surveys examined in this chapter are the Department of Labor’s Cost of Living of Industrial Workers in the United States and Europe, 1888–1890 (U.S. Department of Labor 1986); the Bureau of Labor Statistic’s Cost of Living in the United States, 1917–19 (U.S. Department of Labor, Bureau of Labor Statistics 1986); the Department of Labor’s Family Income and Expenditures, Consumer Purchases Study, 1935–1936 (U.S. Department of Labor, Bureau of Labor Statistics, Works Progress Administration 1941); and the Consumer Expenditure Surveys for 1972–73 and 1991 (U.S. Bureau of Labor Statistics 1973, 1991). Only the published results are available for 1935–36. Micro data are available for all other years. The surveys are described in more detail in appendix 7A.

Compared to subsequent surveys, coverage in the early surveys was limited; the early surveys were often restricted to husband-and-wife families with one or more children present, included only the currently employed, and excluded both the very rich and the very poor. To ensure a comparable age and income distribution across years, families found in the 1972–73 and 1991 Consumer Expenditure Surveys were restricted to husband-and-wife families above the poverty line in which at least one spouse was employed and in which the hus-

band was under sixty-five. Results from the full samples are presented for comparison. Although elderly households are excluded from the analysis, the 1972–73 and 1991 surveys suggest that expenditure elasticities are similar for both elderly and nonelderly households. One should therefore be able to generalize the results to the elderly.

The questions asked about recreational expenditures grew more detailed with each subsequent survey. In 1888–90 only two questions were asked about recreational expenditures, one about expenditures on books and newspapers, the other about expenditures on amusements and vacations. By 1917–19, recreation played a more important role in families' lives. Families were asked about the total cost of purchased musical instruments, records, and rolls (used for mechanical instruments) and of toys, sleds, and carts and the individual cost of movies, plays, dances, pool, excursions (e.g., to amusement parks), vacations, books, and newspapers. In 1935–36 families were asked even more questions about recreational expenditures, specifically expenditures on books, newspapers, games or sports equipment, radio purchase, radio maintenance, musical instruments, movies, the combined category of plays, concerts, and lectures, spectator sports, the combined category of dances, circuses, and fairs, sheet music and records, photographic equipment, toys, pets, entertainment, and social and recreational club dues. By 1972, the individual categories are too extensive to itemize, and the questions that were asked suggest that the scope of recreation increased over time. But did recreation become increasingly affordable to all?

### 7.3 Less of a Luxury

Economic theory gives no general guidance in the specification of Engel curves, and many functional forms have been explored in the literature. One extremely common form is that developed by Working (1943) and Leser (1963), in which budget shares are related linearly to the logarithm of expenditures,

$$w = \alpha + \beta \log(z),$$

where  $w$  is the budget share, and  $\alpha$  and  $\beta$  are parameters to be estimated. Recent work suggests that this simple specification should be generalized to higher-order terms (Hausman, Newey, and Powell 1995). Therefore, the specification that was estimated was

$$w = \alpha + \beta_1 \log(z) + \beta_2 \log^2(z) + \beta_3 \log^3(z),$$

where  $w$  is the budget share of recreation, and  $z$  is total expenditures.<sup>7</sup> A test of this specification is provided by economic theory and is given in appendix 7B.

Engel curves that include demographic variables were also estimated. Age and age squared of the husband were included to account for life-cycle effects, the number of children and the number of children squared to account for differences in household size, and the extent of urbanization to account for differ-

ences in recreational opportunities. Engel curves were also estimated for the more recent data that included the total hours worked by both husband and wife. Although the recreational share was negatively related to total hours worked, the relation was not statistically significant, and the inclusion of this variable did not affect the estimated expenditure elasticities. Using the more recent data, separate Engel curves were also estimated for families with and without children and for families where the household head was older and younger than sixty-five. The resulting elasticities were very similar, suggesting that changes in demographic characteristics cannot explain the secular pattern in expenditure elasticities. Because total expenditure is likely to be measured with error, I tested whether the OLS estimates were close to the IV estimates by restricting the sample to households still in the labor force and using household income as an instrumental variable. The resulting IV estimates were reasonably close to the OLS estimates, and both accurately estimated the elasticities. Because household income was a poor instrument for total expenditures when nonworking households were included in the sample, only the OLS estimates are reported.<sup>8</sup>

Table 7.2 shows that there has been a sharp decline in expenditure elasticities since the beginning of the century. (Elasticity estimates are reported at three quartiles so that the shape of the Engel curves can be compared.)<sup>9</sup> For 1917–19, two different definitions of *recreation* were used—with and without expenditures for vacations and excursions. The first definition is more comparable to that used in 1888–90, the second to that used in subsequent surveys. However, both yield similar elasticities. Expenditure elasticities ranged from about two or greater at the beginning of the century but fell to about 1.5 by the mid-1930s and to about 1.3 by 1991. Expenditure elasticities in 1991 were even lower when no restrictions were imposed on the data. These estimates imply that, at the beginning of the century, a 1 percent increase or decrease in total household expenditures led to a 2 percent increase or decrease in recreational expenditures, whereas in 1991 a 1 percent change in total expenditures produced only a 1.3 percent change in recreational expenditures. Income is therefore a less important determinant of recreational expenditures now than it was in the past. Demographic variables exerted a significant influence on expenditure shares in all years, but the expenditure elasticities are affected only in the early years (upward). Although elasticities fall somewhat at higher percentiles, secular increases in income alone cannot explain the secular decline in expenditure elasticities. When expenditure elasticities are evaluated at 1917–19 inflation-adjusted means and percentiles, they still decline between 1917 and 1991, although not continuously.

The observed decline in expenditure elasticities may be an artifact of the way recreation is defined. No distinction can be made between reading for educational purposes and reading for pleasure. Recreation was also narrowly defined. Alcohol and tobacco can be thought of as adult forms of entertainment. In the 1880s and 1890s, the saloon was the primary recreational diver-

**Table 7.2 Recreation Expenditure Elasticity Estimates**

Year	Without Demographic Variables (Percentile)			With Demographic Variables (Percentile)			Evaluated at Means 1917 Demographic Variables and at 1917 (Percentile)		
	25	50	75	25	50	75	25	50	75
1888–90	1.59 (.02)	1.63 (.05)	1.80 (.02)	2.40 (.03)	2.25 (.04)	2.15 (.02)	2.07 (.01)	2.05 (.01)	2.02 (.04)
1917–19	2.04 (.03)	1.92 (.07)	1.71 (.06)	2.25 (.01)	2.10 (.05)	1.87 (.04)	2.25 (.01)	2.10 (.05)	1.87 (.04)
1917–19	1.91 (.03)	1.81 (.07)	1.62 (.06)	2.06 (.00)	1.95 (.05)	1.76 (.04)	2.06 (.00)	1.95 (.05)	1.76 (.04)
1935–36	1.47 (.01)	1.47 (.02)	1.46 (.02)	1.46 (.19)	1.46 (.19)	1.46 (.19)	1.46 (.19)	1.46 (.19)	1.46 (.19)
1972–73 (restricted)	1.47 (.01)	1.39 (.02)	1.32 (.01)	1.55 (.01)	1.47 (.01)	1.40 (.01)	1.81 (.20)	1.74 (.11)	1.67 (.04)
1991 (restricted)	1.35 (.01)	1.31 (.04)	1.23 (.04)	1.38 (.01)	1.33 (.02)	1.25 (.03)	1.34 (.16)	1.37 (.07)	1.39 (.00)
1972–73 (unrestricted)	1.50 (.01)	1.42 (.01)	1.36 (.00)	1.60 (.01)	1.50 (.00)	1.42 (.00)	1.62 (.02)	1.60 (.00)	1.57 (.01)
1991 (unrestricted)	1.19 (.02)	1.20 (.03)	1.22 (.01)	1.16 (.01)	1.17 (.01)	1.20 (.00)	1.30 (.01)	1.29 (.00)	1.27 (.01)

*Note:* Expenditure elasticities were calculated for 1917–19 under two different definitions of recreational expenses. The first definition includes expenditures for vacations and excursions. The second does not. The first definition is more comparable to that for 1888–90. The second definition is more comparable to that for 1935–36. Demographic variables included in the specifications for 1888–90, 1917–19, 1972–73, and 1991 were age and age squared of the husband, the number of children and the number of children squared, and extent of urbanization. City fixed effects were included in the 1935–36 demographic specification. Adjustments for inflation were made in calculating elasticities at 1917 percentiles. Standard errors are in parentheses. Expenditure elasticities labeled *restricted* were estimated for individuals in the labor force, at neither extreme of the income distribution, and below age 65.

sion of working-class men, and only in the first decade of the century did it begin to be displaced by commercial amusement (Rosenzweig 1983). Another form of adult recreation is eating out. Although today it is likely to be a form of recreation for working couples, in the past it was more likely to be the recreation of the male household head.<sup>10</sup>

The effect of differing definitions of *recreation* can be assessed from table 7.3. The basic results remain unchanged. When reading is excluded, there are sharp falls in recreational expenditure elasticities from 1888–90, to 1917–19, to 1935–36, to 1972–73. There is a smaller decline from 1972–73 to 1991. When alcohol and tobacco or food eaten away from home are included as recreational expenditures, the decline in expenditure elasticities is fairly continuous.

A potentially even more important omission is transportation expenditures. Middletown wives interviewed by the Lynds in 1925 valued automobile ownership ahead of home ownership, stating, “The car is the only pleasure that we have,” and, “I’ll go without food before I give up the car” (Lynd and Lynd 1929, 256). The share of budget expenditures devoted to transportation rose from 3 percent in 1917, to 9 percent in the mid-1930s, and to 14 percent in 1950 (see table 7.1 above). The number of registered automobiles rose from eight thousand in 1900, to 8 million in 1920, and to 23 million in 1930. The percentage of families owning a car rose from 54 percent in 1948 to 82 percent in 1970 (Series Q 148–162 and Series Q 175–186, U.S. Bureau of the Census 1975, 716–17). Steiner (1933) estimated that, in 1930, total travel represented 64 percent of the annual cost of recreation and automobile touring within the United States. At the same time progress in highway construction decreased travel costs. The automobile has made possible visits to national parks as well as short recreational trips within the community to beaches, outlying parks, and golf courses. In 1930, 92 percent of visitors to national forests and 85 percent of visitors to national parks entered using automobiles (Steiner 1933). More widespread car ownership contributed to a thirtyfold increase in visits to national parks from 1904 to 1930 and to an eightyfold increase since 1930 (Series H 836–848, U.S. Bureau of the Census 1975, 398; and table 314, U.S. Bureau of the Census 1993, 244).

Some idea of the effect of vacation travel on expenditure elasticities can be obtained from the 1972–73 survey, which specifically identifies vacation travel. When vacation travel is included as a recreational expense and demographic variables are included in the specification, the expenditure elasticities at the twenty-fifth, fiftieth, and seventy-fifth percentiles are 1.30, 1.23, and 1.16 in the restricted data and 1.39, 1.27, and 1.16 in the unrestricted data, respectively. Recall that, when vacation travel was excluded as a recreational expense, the expenditure elasticities at the twenty-fifth, fiftieth, and seventy-fifth percentiles were 1.55, 1.47, and 1.40 in the restricted data and 1.60, 1.50, and 1.42 in the unrestricted data. The inclusion of vacation travel thus lowers expenditure elasticities in 1972–73. Since recreational expenditure elasticities were 2.25,

**Table 7.3 Recreation Expenditure Elasticity Estimates under Alternate Definitions of Recreation, Estimated Using Demographic Variables**

Year	Without Reading Materials (Percentile)			Including Tobacco and Alcohol (Percentile)			Including Transportation (Percentile)			Including Restaurants (Percentile)		
	25	50	75	25	50	75	25	50	75	25	50	75
1888–90	4.09 (.03)	3.33 (.04)	2.81 (.02)	1.52 (.03)	1.72 (.04)	1.82 (.02)						
1917–19	2.66 (.02)	2.38 (.01)	2.06 (.01)	1.59 (.00)	1.58 (.02)	1.51 (.01)	2.26 (.01)	2.11 (.01)	1.88 (.01)	2.09 (.02)	2.00 (.00)	1.85 (.03)
1917–19	2.50 (.02)	2.27 (.01)	1.98 (.01)	1.42 (.00)	1.43 (.01)	1.38 (.01)	2.08 (.00)	1.98 (.01)	1.79 (.01)	1.94 (.01)	1.88 (.00)	1.77 (.00)
1935–36	2.66 (.63)	2.25 (.55)	2.00 (.46)									
1972–73 (restricted)	1.61 (.01)	1.51 (.00)	1.43 (.00)	1.15 (.00)	1.15 (.01)	1.15 (.01)	1.52 (.00)	1.44 (.00)	1.34 (.00)	1.46 (.00)	1.38 (.01)	1.30 (.00)
1991 (restricted)	1.41 (.02)	1.37 (.02)	1.29 (.03)	1.01 (.01)	1.02 (.04)	1.00 (.04)	1.30 (.01)	1.56 (.00)	1.68 (.00)	1.26 (.01)	1.30 (.01)	1.24 (.01)
1972–73 (unrestricted)	1.69 (.01)	1.56 (.00)	1.46 (.00)	1.14 (.00)	1.15 (.01)	1.15 (.00)	1.54 (.00)	1.47 (.01)	1.35 (.01)	1.63 (.00)	1.47 (.00)	1.35 (.00)
1991 (unrestricted)	1.17 (.01)	1.19 (.01)	1.24 (.00)	.94 (.01)	.95 (.02)	.99 (.01)	1.21 (.00)	1.34 (.00)	1.49 (.01)	1.16 (.01)	1.16 (.01)	1.13 (.00)

*Note:* Expenditure elasticities were calculated for 1917–19 under two different definitions of recreational expenses. The first definition includes expenditures for vacations and excursions. The second does not. The first definition is more comparable to that for 1888–90. The second definition is more comparable to that for 1935–36. Demographic variables included in the specifications for 1888–90, 1917–19, 1972–73, and 1991 were age and age squared of the husband, the number of children and the number of children squared, and extent of urbanization. City fixed effects were included in the 1935–36 demographic specification. Standard errors are in parentheses. Expenditure elasticities labeled *restricted* were estimated for individuals in the labor force, at neither extreme of the income distribution, and below age 65.

2.10, and 1.87 in 1917–19, when excursions are included in the definition of *recreation*, the decline in expenditure elasticities is substantial. When recreational expenditures and transportation expenditures are combined, expenditure elasticities fall from 1917–19 to 1972–73, rising slightly between 1972–73 and 1991 (see table 7.3).

Although only expenditure elasticities across households in which the husband was younger than sixty-five years of age were compared because early consumption expenditure studies did not survey the elderly, recreational expenditure elasticities for the elderly appear to have declined as well. Many of the innovations in recreational activities such as movies, radio, and television or low-impact sports such as golf do not require a high degree of physical exertion and are thus easily accessible to the elderly. They are also accessible financially as well. In recent consumption expenditure surveys, there is no difference between recreational elasticities calculated from a sample restricted to the elderly population and those calculated from a younger sample (see table 7.4). This suggests that the elderly as well now need less income to enjoy recreational activities during their retirement years.

The observed decline in recreational expenditure elasticities—a decline that suggests that the additional amount of income needed to enjoy recreation has fallen—is consistent with the decline in the income elasticity of retirement over the course of this century described in chapter 3. The income elasticity of retirement fell from 0.47 in 1910 to 0.25–0.42 by 1950. By the 1970s, the retirement elasticity was 0.23–0. Recreational expenditure elasticities were around 2 at the beginning of the century but around 1.5 by the 1970s. The decline in recreational expenditure elasticities may have occurred by 1935, but, given that aggregated data were used to estimate the 1935 expenditure elasticity, there is some uncertainty attached to this estimate.

#### 7.4 Explaining the Decline

Potential explanations for the decline in recreational expenditure elasticities include rising incomes, an increase in the time costs of the wealthy relative to

**Table 7.4** Recreational Expenditure Elasticities by Age

Year	Husband or Reference Person < 65 (Percentile)			Husband or Reference Person ≥ 65 (Percentile)		
	25	50	75	25	50	75
1972–72	1.66 (.02)	1.51 (.00)	1.42 (.00)	1.63 (.04)	1.58 (.02)	1.50 (.04)
1991	1.19 (.01)	1.23 (.01)	1.27 (.01)	1.44 (.27)	1.31 (.10)	1.15 (.08)

*Note:* No restrictions on income were imposed on the sample. Demographic variables were included in the specification. Standard errors are in parentheses.

the poor that has led the wealthy to substitute away from recreational goods, a shift from nonmarket to market goods accompanied by a disproportionate increase in the consumption of market recreation by poorer individuals, the public provision of the complements of recreational goods, and declining prices of recreational goods. Table 7.2 above showed that secular increases in income alone cannot explain the secular decline in expenditure elasticities. Recall that, when the 1991 expenditure elasticities were evaluated at the 1917–19 inflation-adjusted means and percentiles, they remained unchanged. However, the 1972–73 expenditure elasticities did rise, producing a decline of only 17 percent between 1917–19 and 1972–73 rather than one of 30 percent. Thus, at most half the decline in recreational expenditure elasticities from the beginning of the century to recent times could be accounted for by rising incomes.

Rising time costs of the wealthy relative to the poor are an unlikely explanation. The distribution of total household income in 1972–73 and in 1991 lay between that found in 1888–90 and 1917–19. When those households earning more than \$36,000 per year in 1972–73 were deleted from the restricted sample, recreational expenditure elasticities at the twenty-fifth, fiftieth, and seventy-fifth percentiles rose slightly from 1.55, 1.47, and 1.40 to 1.63, 1.58, and 1.50, respectively. They remained virtually unchanged at 1.44, 1.31, and 1.15 when households earning more than \$100,000 were omitted from the 1991 restricted sample.<sup>11</sup> Furthermore, trends in wage inequality do not coincide with trends in expenditure elasticities. Inequality in wage ratios between the skilled and the unskilled is now at pre-World War II levels. The premium to education fell from the 1890s to the late 1920s and leveled off during the 1930s (Goldin and Katz 1995). Thus, the large differences in expenditure elasticities at the beginning of the century and at its end cannot be explained by the rising time costs of the wealthy inducing them to substitute away from recreational goods.

Differences in expenditure elasticities by city size in 1917 provide some clues to the effect of a shift from market to nonmarket recreational goods. In the past, differences in recreational opportunities between rural and urban areas were much greater than they are today. Rural areas and small cities simply did not have a large enough population to support many market forms of activity such as permanent theaters or dance halls. But table 7.5 shows that elasticities were fairly similar between cities with a population of more than 1 million and those with a population of less than twenty-five thousand, suggesting that the shift from nonmarket to market goods has not had a large effect on the slope of Engel curves. However, there is a tendency for elasticities at the seventy-fifth percentile to be smaller in smaller cities. Perhaps there were so few recreational opportunities in small cities that, after a given level of income had been reached, money could buy very little additional recreation.

It is virtually impossible to obtain direct evidence that declining prices or investments in public recreational facilities have lowered expenditure elasticities. Information on recreation prices in the first half of this century is limited. Owen (1969) has pieced together an index of recreation prices, but this index



**Table 7.5 Recreational Expenditure Elasticities in 1917–19 by City Size**

Sample	City Population Is:					
	≥ 1,000,000 (Percentile)			≤ 25,000 (Percentile)		
	25	50	75	25	50	75
Excludes vacations and excursions	2.12 (.10)	2.04 (.00)	1.88 (.04)	2.15 (.01)	1.90 (.05)	1.61 (.04)
Includes vacations and excursions	2.29 (.12)	2.17 (.01)	1.99 (.04)	2.19 (.02)	1.94 (.04)	1.68 (.04)

*Note:* Estimated using the mean demographic variables and percentiles of the entire sample. Standard errors are in parentheses.

**Table 7.6 Changes in the Recreational Budget, 1888–1991**

Year	% Recreational Expenditures Spent on:			
	Reading Materials	Movies and Live Entertainment	Home Entertainment	Sporting Equipment
1888–90	65.5			
1817–1919	38.9	22.9	10.4	
1935–36	27.2	23.8	12.6	8.5
1972–73	21.0	15.3	30.4	7.0
1991	20.9	7.1	37.1	4.0

*Note:* Home entertainment includes expenditures on musical instruments, sheet music, movie rentals, cable television, and the purchase, repair, or rental of radios, televisions, stereos, and videocassette recorders.

cannot account for the “price” changes that result from the introduction of a new product, previously unavailable to consumers. Although Hausman (1997) demonstrates how a price index that incorporates the demand for new goods could be estimated, the data requirements are extensive. I therefore provide only indirect evidence. I divide recreational goods into broad categories (reading materials, movies and live entertainment, home entertainment, and sporting equipment) and equate changes in expenditure elasticities with the introduction of new products, price declines in existing products, and the provision of public recreational goods.

Trends in the percentage of recreational expenditures devoted to these four broad recreational categories are described in table 7.6. The share of reading materials has fallen from 66 percent in 1888 to 39 percent in 1917 and has remained at about 21 percent in the last twenty years. The share of movies and live entertainment fell from 21 percent in 1917 to 7 percent in 1991. The share of home entertainment (everything from musical instruments to television) rose from 10 percent in 1917 to 37 percent by 1991. In contrast, recreational

expenditures on sporting equipment have fallen from 9 to 4 percent between 1935 and 1991. Other categories of recreation (not given) that have declined in importance include club memberships and toys, the former falling from 8 to 6 percent between 1917 and 1991 and the latter from 17 to 4 percent.

Table 7.7 shows that expenditure elasticities for reading materials fell between 1888–90 and 1917–19, precisely when the price of newsprint fell, pulp magazines, rotary presses, and speedy typesetting machinery were introduced, advertising increasingly began to subsidize the cost of a newspaper, and publishers built circulation through deep discounting and promotional gifts and prizes. Circulation rose rapidly from 0.5 newspapers per household to more than 1.3 by 1915, and immediately after World War I more than nine in ten low- and medium-income urban families took a paper (Leonard 1995, 60, 163–64, 178–79). A particularly important innovation after World War I that brought reading to even more people was the mass manufacture of paperback books, which began in the 1930s.

Expenditure elasticities for movies and live entertainment fell between 1917 and 1935. Early social investigators noted that, among lower-income households, the “usual attitude toward any expenditure for pleasure is that it is a luxury which cannot be afforded” (More 1907, 142). In fact, in the first decade of the century, vaudeville prices ranged from ten cents to one dollar, with most seats costing twenty-five to fifty cents. But, by 1905, moving picture tickets cost only five to ten cents (Peiss 1986, 144). Expenditures for pleasure thus became an affordable luxury, and, by 1910, almost three-quarters of all moviegoers were working class, and weekly attendance was 10 million (Owen 1969; Peiss 1986, 146). The increasing diversity in types of pictures produced attracted the patrons of popular melodrama, variety, and burlesque and forced the closing of the “people’s” theaters in the 1920s. Although movie prices rose within this time period, the quality-adjusted price probably fell. For example, sound was introduced in 1927, and, by 1936, over 90 percent of movie theaters could reproduce sound. The increasing popularity of movies is evident in the attendance figures, which registered a ninefold increase between 1910 and 1930 (Owen 1969, 89–90).

Elasticities for home entertainment fell sharply between 1917–19 and 1935–36, when the radio and the phonograph replaced musical instruments as the main form of home entertainment. In 1867, an article in the *Atlantic Monthly* claimed that “almost every couple that sets up house-keeping on a respectable scale considers a piano only less indispensable than a kitchen range” (quoted in Braden 1988, 110). It was indispensable because it provided amusement. An article appearing in *Home Amusements* in 1881 stated, “The family circle which has learned three or four instruments is to be envied. They can never suffer from a dull evening”—at the same time admitting that “the necessity of practicing . . . is a home torture” (cited in Braden 1988, 111). Player pianos, offering “perfection without practice” and in 1919 outnumbering standard pianos, and the phonograph, introduced in the 1890s and thereafter steadily im-

**Table 7.7 Expenditure Elasticity Estimates for Specific Recreational Goods, Estimated Using Demographic Variables**

Year	Reading Materials (Percentile)			Movies and Live Entertainment (Percentile)			Home Entertainment (Percentile)			Sporting Equipment (Percentile)		
	25	50	75	25	50	75	25	50	75	25	50	75
1888–90	1.54 (.01)	1.34 (.03)	1.23 (.02)									
1917–19	1.18 (.01)	1.15 (.02)	1.07 (.02)	2.20 (.01)	2.02 (.02)	1.85 (.02)	4.10 (.38)	3.28 (.13)	2.57 (.04)			
1935–36	1.00 (.00)	.87 (.01)	.79 (.02)	1.43 (.66)	1.45 (.69)	1.29 (.63)	1.13 (.24)	.96 (.07)	.96 (.06)	2.66 (11.54)	2.55 (8.08)	2.00 (5.55)
1972–73 (restricted)	1.15 (.03)	1.06 (.01)	1.00 (.01)	1.49 (.04)	1.39 (.04)	1.26 (.05)	.97 (.04)	.90 (.07)	.86 (.10)	1.37 (.05)	1.23 (.06)	1.16 (.06)
1991 (restricted)	1.15 (.00)	1.06 (.04)	1.00 (.04)	1.63 (.04)	1.35 (.06)	1.15 (.07)	.96 (.01)	.83 (.04)	.70 (.05)	1.98 (.27)	1.50 (.05)	1.29 (.12)
1972–73 (unrestricted)	1.18 (.08)	1.10 (5.32)	1.04 (2.19)	1.51 (.00)	1.43 (.00)	1.30 (.00)	1.01 (.13)	.94 (.28)	.90 (.52)	1.69 (.77)	1.45 (1.55)	1.30 (3.46)
1991 (unrestricted)	1.06 (.02)	1.03 (.03)	.91 (.02)	1.10 (.04)	1.34 (.04)	1.33 (.02)	1.01 (.02)	.88 (.03)	.74 (.01)	2.40 (.18)	1.86 (.04)	1.53 (.01)

*Note:* Home entertainment includes expenditures on musical instruments, sheet music, movie rentals, cable television, and the purchase, repair, or rental of radios, televisions, stereos, and videocassette recorders. Demographic variables used in estimation were age and age squared of the husband or the reference person, the number of children and the number of children squared, and the extent of urbanization. Standard errors are in parentheses. Expenditure elasticities labeled *restricted* were estimated for individuals in the labor force, at neither extreme of the income distribution, and below age 65.

proving in quality, were the first products to make music in the home relatively easily obtained by most households. Phonograph sales reached a peak in the 1920s before plummeting in the early 1930s, displaced by the comparatively free entertainment provided by the radio. Although radio sales were insignificant in 1919, when radio ownership was limited to hobbyists listening to ship transmissions and to each other, the popularity among radio enthusiasts of a music broadcast from a Westinghouse plant led to regular program transmissions. Falling radio prices and the growth of broadcasting produced an eight-fold rise in radio sales from 1923 to 1929. The number of families owning radios continued to rise even during the depression (Owen 1969), suggesting that, if radios were a luxury, they were an affordable one. Elasticities have continued to trend downward, perhaps because compact discs, televisions, and VCRs continued to lower the price of entertainment. These are all inexpensive forms of entertainment. Their marginal cost is close to zero, and the fixed cost is small when amortized. The fall in elasticities has not been sharper because these forms of entertainment often merely replaced the radio, which was already widely diffused. Those who were children when television was first introduced later wrote, "Once television arrived, my whole life changed. I don't think that I ever listened to the *The Lone Ranger* or *Straight Arrow* on the radio again. They just didn't stand a chance against the likes of *Six-Gun Playhouse*, *Howdy Doody*, or *Beat the Clock*" (quotation from Braden 1988, 121).

Elasticities for sporting equipment fell sharply between 1935–36 and 1972–73. After World War II the popularity of sports boomed, in part because technical advances made by the armed forces in outdoor equipment during World War II became available to consumers (Dewhurst et al. 1955, 346–47) in the form of waterproof clothing, portable boats, tents, cooking equipment, and nylon and plastics, and in part because recreational facilities were expanded. Boating, which in the nineteenth century was almost wholly limited to the wealthy, grew somewhat slowly in the 1920s and 1930s but then expanded explosively in the postwar years, stimulated by the development of artificial lakes and reservoirs. Whereas at the beginning of the century there were only a few thousand pleasure craft registered throughout the country, in the 1960s they numbered in the millions. Golf, tennis, and particularly skiing also experienced large postwar increases in participation, the expansion of the first two sports aided by increases in land availability resulting from suburbanization. Bowling, whose participants probably numbered about 8 million in the 1930s, gained 22 million more adherents by the 1960s (Dulles 1965, 357–62). Table 7.7 thus suggests that price declines and product improvements arising from technological change and the creation of a mass market and the public provision of recreational facilities have turned recreation into less of a luxury.

## 7.5 Who Has Benefited?

This chapter has emphasized that income no longer limits recreational activities as sharply as it did in the past. By lowering the price of entertainment,

technological change has made recreation affordable to all and has improved the standard of living of those in the lower deciles of the income distribution. The increase in public recreational facilities has had the same effect. Estimated expenditure elasticities for recreational goods have fallen from slightly more than two in the 1880s to slightly more than one in this decade. Expenditure elasticities have continued to fall even during the last two decades, when income inequality increased. Leisure is now less of a luxury. Investments in public goods, technological change, and the lack of leisure becoming an identifying feature of the upper rather than the lower classes have made entertainment inexpensive and readily available to rich and poor alike.

The group that has benefited the most has been the elderly. The retired have become the true leisured class. A man aged twenty in 1880 would expect to spend only 2.3 years, or less than 6 percent of his life, in retirement. In contrast, a man aged twenty in 1990 may expect to spend up to a third of his life in retirement (Lee 1996), much of it engaged in leisure activities. The amount of time spent on recreational activities increases at older ages.<sup>12</sup> Recall that recreational expenditure elasticities for elderly households were similar to those for younger households, suggesting that, among the elderly as well, income is no longer as important a determinant of recreational expenditures as it once was. In fact, activities that individuals found to be of interest before retirement remain of interest or become increasingly attractive after retirement (Morse and Gray 1980, 58).

The variety of recreational activities available to the elderly today is much greater than that available to the elderly of the past. Technological change has permitted producers to satisfy increasingly narrow segments of the market. Dulles (1965, 307–9) recounted how movies led to the rapid demise of traveling theater companies, thereby leading to the concentration of the theater in a few cities and therefore limiting the legitimate theater to the more sophisticated audiences of metropolitan centers, thus indirectly encouraging theatrical producers to present more serious plays rather than those that appealed to the largest possible nationwide audience. More recently, the growth of cable television with its nonstop sports, weather, news, and arts channels has satisfied a wide variety of tastes. Leisure may have become more uniform in that watching television is now the most common form of entertainment, but the variety of television programming has increased.

Technological change has also broken the link between the consumption of entertainment and location, thereby increasing the recreational possibilities of the elderly living in rural areas and perhaps inducing more of the elderly to migrate to areas with a lower cost of living. Although the early consumer expenditure surveys provide no information on rural populations, we know that rural-urban differentials are no longer as pronounced as at the beginning of the century. Commercial amusements played a relatively unimportant part in rural life prior to the advent of the movie theater and the automobile. First the radio and then television brought commercial recreation directly into the rural home. National clubs replaced the Grange and fraternal societies and linked the recre-

ational habits of rural people more closely with those of the rest of country. Walter Damrosch, who in the 1920s conducted weekly radio concerts with the New York Symphony Orchestra, recounted, "As the majority of these people, living far away from the centres of musical culture, had never heard the kind of music which I gave them, and as even the names of Mozart, Beethoven, and Wagner were unknown to them, it was a joy to cultivate such a virgin field and to find out how easy it was to make willing converts of my listeners" (quoted in Braden 1988, 177).

More leisure may now be consumed because its price has fallen. An increase in variety may have caused the marginal utility of leisure to fall less rapidly, leading to the consumption of more leisure.<sup>13</sup> Owen (1969) has argued that recreational goods and leisure are complements and that the fall in the relative price of recreational goods can explain much of the decline in work hours in the first forty years of this century, but relatively little thereafter. His index of the price of recreation shows little change after 1940. But surely a quality-adjusted index would. For example, not only were the first radios and televisions of poor sound and quality, but program choices and broadcasting hours were limited as well. Only 104 operating broadcast stations existed in 1950, but by 1970 881 did and by 1990 1,442 (United States Bureau of the Census 1975, 1993). Adjusting for quality, a price index of television sets fell from 159.7 in 1950, to 99.5 in 1972, and to 95.3 in 1984 (Gordon 1990, 306). Were it possible to construct a quality-adjusted index of the price of seeing and hearing a comic skit, one would no doubt find that the introduction of new goods, such as television, has lowered the price tremendously.

But why is so much of modern recreation taken at older ages rather than being spread more evenly over the life cycle? Many of the innovations in home entertainment may have disproportionately benefited the elderly because these activities are not physically demanding. Improvements in health now enable the elderly to enjoy activities that the elderly of the past could not. In the 1880s, bean bakes followed by dances were often sponsored by the Union army veterans' organization, the Grand Army of the Republic (GAR), but an observer recounted that, by 1910, when the mean age of veterans was sixty-nine, the popularity of these events had dwindled because "most of the old men left in the GAR were too feeble to dance" (quoted in Braden 1988, 37-38). In contrast, many of the retirees interviewed by Morse and Gray (1980) filled their time with square dancing. But it appears unlikely that the growing attractiveness of leisure alone could explain why so much leisure is now taken at older ages.<sup>14</sup>

An alternative explanation for why so much of recreation is taken at older ages lies in the tax structure of the U.S. economy. Although the progressive nature of income taxes suggests that workers should reduce hours of work and instead work more years, pensions provide another solution to the problem of reducing the lifetime burden of taxation. Because pension earnings are tax exempt, pensions make savings for retirement less costly than savings otherwise would be. In addition, most pensions provide the incentives to retire described in chapter 2.

Finally, another explanation for the leisure-age pattern must lie in the contract that the firm is willing to offer and the worker to accept. Leisure could be spread more evenly over the life cycle, but only at a level of compensation most workers are unwilling to accept. Workers reaching retirement age have considerable assets compared to the elderly of the past. Although declines in the workweek mean that they also have more time, there are still only twenty-four hours in the day. Furthermore, the pursuit of recreation requires not only part-time but also part-year work. One of the retirees interviewed by Morse and Gray (1980, 94) wrote, "I now feel an ideal situation would be to have a one-day-a-week job (with pay), provided it would be both pleasant and stimulating—and it would have to be with freedom to leave for long periods of travels." This retiree did acknowledge that "such a job is not easy to find." In fact, Hurd and McGarry (1993) find that at most 24 percent of workers had the option to reduce hours of work.

Morse and Gray (1980, 60) found that retirees who said that they traveled frequently before retirement increased from 13 percent before retirement to 37 percent after retirement. It was not just the frequency of trips that increased but also their length. One interviewee, who retired at sixty years of age, reported,

My wife and I have completely changed our lifestyle since retirement. For the first couple of years we traveled around the country to see sights and country (historical and scenic) I wanted to see. Then we joined the Wally Byam Caravan Club International and have greatly enjoyed new friends and a new lifestyle. We live in a 31-foot AIRSTREAM trailer—spend seven months in winter in a park in Melbourne, FL, where we have every kind of activity. We dance and square dance and party all winter. Then in summer we travel about—stop and spend some days with children and grandchildren and rest of time traveling to rallies in caravans and sightseeing from Canada through 48 states and Mexico. My goal in trying to retire early was to be able to do just this kind of thing before either my wife, who is older, or I become ill or unable to physically do as we have been doing for six years now. (p. 59)

Another retiree, who retired at age sixty-one, wrote,

We planned on traveling. Since retirement we sold our home and moved into an apartment for one year. We then put our things in storage and moved into our travel trailer for seven and a half years. During this time we toured 17 European countries, Canada (east to west, including Newfoundland and Prince Edward), Mexico, and all of the Central American countries to the Panama Canal and end of Pan American Highway. After another year in an apartment we are back in our trailer, full time again. As long as our health continues we plan on being on the road or on a travel trailer lot we own in Florida. (p. 61).

Job requirements would clearly impinge on this sort of extended travel. These retirees' comments also show that workers may be willing to take most of their leisure when they retire only if their health still permits them to enjoy their retirement.

In the 1950s, community leaders lamented the inability of Americans to enjoy doing nothing, which made retirement so difficult, and proposed a national effort to educate people into leisure (Graebner 1980, 228). Leisure became a subject of study among sociologists (e.g., Kaplan 1960; Smigel 1963) concerned that the retired did not know how to use leisure. Scitovsky (1976, 235) wrote, "When people retire they are suddenly deprived of the stimulus satisfaction their work has given them, and, naturally they try to fall back on the other sources of stimulation available to them. If they are unskilled consumers, they soon find their sources of stimulation inadequate; the result is the heartrending spectacle of elderly people desperately trying to keep themselves busy and amused but not knowing how to do so." Although it is true that some individuals face great difficulties adapting to retirement, the majority of men interviewed by Morse and Gray (1980) expressed satisfaction with retirement. The more educated tended to be happier, but in general dissatisfaction was related to financial difficulties and poor health. As one retiree emphasized, "Retirement is *wonderful*" (Morse and Gray 1980, 105). The majority of the elderly appear to be satisfied enough with their leisure to continue to retire.

## 7.6 Summary

In this chapter I have shown that income has become a less important input to the enjoyment of leisure. The expenditure elasticity of recreational goods has fallen from more than two at the beginning of the century to slightly more than one today. Expenditure elasticities fell not only because people have grown richer but also because technological change has lowered the price of recreation and because the public provision of goods, such as recreational facilities, that are complementary to recreational goods has increased. At the same time the increase in the variety of recreational activities has made leisure more attractive. The findings imply that the elderly may be well off enough and that recreation may now be attractive and inexpensive enough that decreases in income will not lead to substantial increases in labor force participation rates. Conversely, increases in income will not produce substantial decreases in labor force participation rates. These results are consistent with the observed decline in the income elasticity of retirement since the beginning of the century.

## Appendix 7A

### *Consumer Expenditure Surveys*

Compared to subsequent surveys, coverage in 1888–90 was restricted. The sample was limited to workers in nine protected industries (bar iron, pig iron, steel, bituminous coal, coke, iron ore, cotton textiles, woolens, and glass) and



appears to have been stratified by the proportions employed in each industry. Twenty-three states were covered, none of them in the West. Sample families were selected from employer records and were limited to families of two or more persons. For greater comparability with the 1917–19 and 1935–36 surveys, the sample was restricted to husband-and-wife families.<sup>15</sup> Total sample size is 6,716. Only two questions were asked about recreational expenditures. One was about expenditures on books and newspapers, and the other was about expenditures on amusements and vacations.

Families from the 1917–19 study were also selected from employer records and were restricted to those where both spouses and one or more children were present, where salaried workers did not earn more than \$2,000 a year, where families had resided in the same community for a year prior to the survey, where families did not take in more than three boarders, where families were not classified as either slum or charity, and where non-English-speaking families had been in the United States five or more years. Ninety-nine cities in forty-two states were covered. The sample contains 12,817 families, 849 of whom were black. Families were asked about the total cost of purchased musical instruments, records, and rolls and toys, sleds, and carts and the individual cost of movies, plays, dances, pool, excursions, vacations, books, and newspapers.

The 1935–36 Consumer Purchases Study was limited to native-born husband-and-wife families in metropolises, white families in large cities with a minimum income of at least \$500, and families in other cities with an income of at least \$250. The communities covered by the study included fifty-one cities, 140 villages, and sixty farm counties, representing thirty states. More than a million families were interviewed. Questions were asked about family expenditures on books, newspapers, games or sports equipment, radio purchase, radio maintenance, musical instruments, movies, the combined category of plays, concerts, and lectures, spectator sports, the combined category of dances, circuses, and fairs, sheet music and records, photographic equipment, toys, pets, entertainment, and social and recreational club dues. Vacation expenditures were not explicitly identified. The published tabulations give average total expenditures and average expenditures on specific recreational items by expenditure class for the seven major cities and for eight aggregated smaller city categories. Information on black families is available for two of the major cities and two of the aggregated smaller city categories. These average values are used in the analysis.<sup>16</sup>

By 1972, the consumer expenditure surveys are representative of the entire population, and questions asked about specific recreational items range from country club memberships to electrical equipment to music lessons to swimming pool maintenance. Vacation expenditures were explicitly identified in 1972–73 but in 1991 were classified as expenditures on such items as transportation or shelter. Because neither the 1935–36 nor the 1991 survey categorized vacation expenditures as recreation, I do not include vacation expenditures in the 1972–73 definition of recreation.

With the exception of 1991, when five quarters of data are given, covering the end of 1990, 1991, and the beginning of 1992, all data are annual. Only data for the second quarter of 1991 were used in regression estimates because households are surveyed more than one quarter and combining quarters would have led to heteroscedasticity.<sup>17</sup>

The restrictions imposed on the 1972–73 and 1991 Consumer Expenditure Surveys produce an income distribution slightly wider than that found in the 1917–19 data but similar to that found in the 1888–90 data. The 1935–36 distribution is much wider but is comparable to the income distributions in the unrestricted 1972–73 and 1991 data. When total expenditures rather than income are considered, the restricted 1972–73 and 1991 distributions are wider than those in 1888–90 and 1917–19. Despite the widening observed in the restricted income distribution, the distribution of recreational expenditure shares has narrowed over time. That is, the share of recreational expenditures no longer rises so sharply as household expenditure increases.<sup>18</sup>

## Appendix 7B

### *Engel Curve Specification*

Economic theory provides a test of the Engel curve specification of polynomial degree three used in the estimation. Gorman (1981) showed that, provided that the polynomial functions that contain expenditures do not depend on price in the demand curve specification, then, when several budget share items are considered, the rank of the matrix of coefficients for the polynomial terms in income is at most three. For the specification of polynomial degree three, the restriction takes the form that the ratio of the coefficient of the quadratic term to the coefficient of the cubic term will be constant across budget share equa-

**Table 7B.1** Ratio of  $\beta_2$  to  $\beta_3$  for Specification without Demographic Variables

	1888–90	1917–19	1973–73	1991
Recreation	–31.89 (.31)	–21.52 (.12)	–27.45 (.86)	–22.57 (1.54)
Food	–31.25 (.30)	–20.98 (.43)	–25.99 (.72)	–24.86 (.54)
Shelter		–21.60 (.08)	–26.02 (.12)	–22.13 (3.05)
Clothing	–32.55 (.68)	–20.26 (.85)	–25.91 (.13)	–23.46 (.82)

*Note:* Standard errors are in parentheses. Engel curves for housing were not estimated for 1888–90 because information is available only for renters. The estimates for 1972–73 and 1991 are based on the unrestricted data.

tions (Hausman, Newey, and Powell 1995). This rank restriction is tested in table 7B.1, which reports the ratio of  $\beta_2$  to  $\beta_3$  for recreation, food, shelter, and clothing when demographic variables are excluded from the specification. The estimated ratios are similar, suggesting that the Gorman rank condition is satisfied. These results remain unchanged when demographic variables are added to the specification.

## Notes

1. If the long hours of domestic servants are any indication (seventy-two hours a week in 1900, compared to the sixty hours of nonfarm workers), housewives worked even longer hours than manufacturing workers (Lebergott 1993, 67).

2. Breakdowns by the wage rate are possible for 1985. Among labor force participants, those in the bottom 10 percent of the wage-rate distribution worked forty-four hours a week and spent thirty hours a week on recreation. The number of hours worked then falls with an increasing wage rate before reaching the top 15 percent of the wage-rate distribution. Those in the top 15 percent worked fifty hours a week and spent twenty-nine hours a week on recreational activities.

3. Forty-seven percent of all time devoted to recreational activities in 1985 was spent watching television among those with household incomes of under \$15,000, \$15,000–\$25,000, and \$25,000–\$35,000. Those earning \$35,000 or more spent 43 percent of all recreational time watching television (calculated from Robinson 1993).

4. Reading has been included in the recreation budget share. The increase in budget share since 1917–19 is underestimated because earlier definitions of recreation included the amount spent on vacations and excursions. Travel and lodging were not included in 1934–36, 1950, 1972–73, and 1991.

5. Definitions are consistent across time.

6. George Tilyou, the founder of Steeplechase, an amusement park in which customers were twirled and spun around, said that “what attracts the crowd is the wearied mind’s demand for relief in unconsidered muscular action. . . . We Americans want either to be thrilled or amused, and we are ready to pay well for either sensation” (cited in Kasson 1978, 58).

7. The use of the alternative specifications

$$w = \alpha + \beta_1 \log(z) + \beta_2 \log^2(z)$$

and

$$w = \alpha + \beta_1 \log(z) + \beta_2 z \log^2(z)$$

does not alter the basic conclusions, but the fit is much worse.

8. Hausman, Newey, and Powell (1995) find that, when previous quarter’s expenditures are used for current quarter’s expenditures, both the IV and the OLS estimates accurately estimate the elasticities.

9. The expenditure elasticity is equal to  $1 + \partial \hat{w} / \partial \log(z) \hat{w}^{-1}$ , where  $\hat{w}$  is predicted at one of the percentiles. Polynomial coefficient estimates are not reported because they are relatively uninformative.

10. For example, in one of the families surveyed by the New York State Factory Investigating Commission in 1914, the husband would go out for a meal on Sundays (see New York State Factory Investigating Commission 1915).

11. The specifications used included demographic variables.

12. Recall that approximately 19 percent of the time of twenty-five- to fifty-four-year-olds in 1985 was spent on recreation. In contrast, fifty-five- to sixty-four-year-olds spend 24 percent of their time on recreation and those over sixty-five years of age 28 percent (see table 2.1 above).

13. In contrast, Linder (1970) has emphasized that the acquisition of goods that increase the intensity of pleasure requires work effort and therefore has argued that work time has increased. Also, if an increase in the attractiveness of leisure increases the marginal utility of leisure, then the first-order conditions imply that less leisure and more goods may be consumed. But hours of work have fallen since the beginning of the century, and work time has decreased even over the last two decades.

14. In a simple life-cycle model, the rate of change in hours of labor is inversely related to the substitution effect times the rate of change in the wage rate and positively related to the income effect times the difference between the rate of time preference and the interest rate. Chapter 3 showed that the income effect has fallen since the beginning of the century. Either a rising substitution effect or a positive difference between the rate of time preference and the interest rate could lead hours of work to fall more sharply at older ages. But the outcome is ambiguous even under these conditions.

15. Since relatively few sample households were not husband-and-wife families, the results remain unchanged when the entire sample is used.

16. For more details about the coverage and methodology of the 1888–90, 1917–19, and 1935–36 surveys, see Lamale (1959).

17. The results remain unchanged when another quarter of data is used.

18. Of course, the distribution of other goods may have widened over time. In fact, the poor now spend disproportionately more on shelter and the rich disproportionately more on education, perhaps because of the increasing public provision of education.