Irreplacable but Limited: The Value of Large-Scale Time Use Surveys in Leisure Studies. The Case of Differences in Time Use by Sex, Age and Income from before to after the Covid-19 Lockdowns in the UK

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Abstract
The UK pandemic lockdowns left enduring legacies in time use: paid work time up, travelling time down, and leisure time up. This paper uses evidence from the special pandemic series of time use surveys to show how the lockdown experience changed the lives of men and women, age groups and income bands, in different ways. There was a substantial shift of paid work into people’s homes. Time use became relatively genderless. Men increased and women reduced time spent on unpaid housework. Differences in time use between 18 - 60 year olds and senior age groups widened, as did differences between the top income band and the rest. These findings are used to illustrate the irreplaceable contributions that time use surveys make in leisure studies while at the same time drawing attention to their limitations which help to explain their under-use.

Keywords
Covid-19, Leisure, Lockdowns, Time Use

1. Introduction
1.1. Time Use Surveys in the UK
Leisure scholars are necessarily interested in time. Modern leisure is a type of time. It is time that is otherwise uncommitted (to an employer, for example) or doing something that is necessary (such as sleeping). Pre-modern leisure-like ac-
activities and experiences were blended into “ways of life” which included family, community, religion, work and free time. Modern leisure was created when work was wrenched from the rest of life into offices, mines and factories. This created relatively free time in which people could choose to do things for the intrinsic satisfaction, purely for fun and amusement (Roberts, 2006). Scholars who wish to include its uses in their leisure concepts (engagement in some specific type of activity or deriving a specific experience) must concede that no activities or experiences are necessarily leisure. Gardening, football and photography may be leisure activities or paid occupations. People can experience enjoyment and boredom when at work and during leisure. These can be recognised as leisure activities and experiences only if and because they occur in leisure time.

Leisure studies’ origins as a research and teaching specialism, initially in North America, were amid a historical era when leisure time was growing (or so it was believed, and this belief is still uncontested) (Veal, 2018). At that time, in the 1950s and 60s, there was no evidence from time use surveys. Leisure was “known” to be growing as a result of reductions in normal paid work time, from six to five-and-a-half days per week, then to five days, and additions to paid holiday time. This era also saw consumer spending rise at a rate unprecedented before or since (Cross, 1993). The generators of leisure (reduced working time and rises in real incomes) were expected to remain active, thereby creating societies in which leisure became a larger and in some uncertain ways a more important part of people’s lives. Dumazedier’s name and especially his book Towards a Society of Leisure (Dumazedier, 1967), became closely associated with this forecast but he was neither alone nor the first. A future society with an abundance of leisure time had been envisaged in 1930 by the economist Keynes (1930). However, Keynes did not anticipate the post-1945 increases in people’s “wants” which have made consumer spending an important source of economic growth.

Time use surveys had been pioneered in Russia, North America and some other countries before 1939 but never with nationally representative samples. There was and still is a consensus that time diaries are more accurate than other measurements, usually self-estimates, of how much time people devote to different uses (Chase & Godbey, 1983). If conducted regularly, with representative samples, time use surveys promised to chart further trends in leisure and its uses more precisely than ever before, and how amounts and uses of leisure time differed between socio-demographic groups. This would be an evidence base for state leisure policies, and also useful to voluntary sector and commercial providers of leisure goods and services.

Time use surveys require respondents to keep diaries with each hour of each day divided into (nowadays) 10 minute slots. In recent surveys, in each period respondents have been asked to name their main activity, any other activities, where they were, with whom, and their feelings at the time. In the UK, up to and including 2014-15, there had been six such surveys with nationally representative samples.
1) The first survey was conducted by the British Broadcasting Corporation (BBC) in 1961. Its interest was in who was listening to and watching its broadcasts. Diaries for one week were completed by one person aged 15 - 65 from the sampled households. Data were collected covering 2500 weeks.

2) The second survey was in 1974-75, also by the BBC, but on this occasion asked all persons aged 15 - 65 in the sampled households to complete diaries (British Broadcasting Corporation, 1978; Gershuny & Thomas, 1980).

3) The third survey was in 1984-85 and was launched by the Economic and Social Research Council (ESRC) and incorporated into the Council’s Social Change and Economic Life Initiative (SCELI) which was a set of projects all addressing the issue in the Initiative’s title. In this survey 1700 persons from 912 households, all aged 14 and over, completed one-week diaries. This was the first UK time use survey in which there was no upper age limit in the sampling.

4) The fourth survey was commissioned by the Office for National Statistics (ONS). In 2000-01 it asked all members of the sampled households, 11,854 individuals, to complete diaries for just two days, one weekday and one weekend day.

5) This ONS survey was repeated in 2005. These ONS surveys were the UK’s contributions to the Harmonised European Time Use Survey (HETUS) (Office for National Statistics, 2006).

6) The 2014-15 survey mirrored its two predecessors and was also the UK contribution to HETUS (Gershuny & Sullivan, 2019).

1.2. Uses of Time Survey Evidence

I have not seen, and I do not believe that there has ever been, a full analysis and report from any of these six UK surveys. Furthermore, the evidence from these surveys has rarely entered the leisure studies literature. Contributions to leisure studies using time use evidence from the UK and elsewhere have rarely been from UK-based authors. The intrusions into leisure studies have usually concerned the work-leisure relationship. Throughout the twentieth century this was a major issue, certainly in the sociology of leisure, and leisure scholars more widely continued to believe that any further growth of leisure depended on further rolling-back the demands of work (Veal, 2018). Schor, an American author, gained worldwide attention for her book in which she claimed that Americans were working longer, pressured by the demands of greedy employers (Schor, 1991). These claims were refuted with time diary evidence (Robinson & Godbey, 1999). In other countries where time use evidence was available researchers found no signs of hours of work rising (for example, Bittman & Wajcman, 1999; Zuzanek et al., 1998). However, demands for a better work-life balance were real and had become a public issue (Roberts, 2007). Time use data showed that the demands had a sound basis in women’s increasing participation in Western countries’ workforces. Women coping with a “double shift” of paid jobs and major responsibility for domestic work including child care might not be short...
of the necessary hours in a day but they were experiencing severe “hotspots”, especially mothers with young children, during “rush hours” at the beginning and end of each working day (Bittman & Wajcman, 1999).

By the 2010s work-life balance had metamorphosed into a time pressure issue. Employees were said to be experiencing work intensification when at work, and new information technologies, the internet and smartphones, were enabling work to intrude into leisure time. A spate of publications has claimed that life is accelerating and that we are doing everything faster (Colville, 2016; Gleick, 1999). Other books have advocated “slowing down” (Hohlbaum, 2009; Honoré, 2004). Speed-up had been predicted by Linder (1970): a result of incomes and spending rising more rapidly than the time to spend on and use the goods and services that people would be able to afford. These claims were interrogated by Wajcman (2015) with time use and other evidence. She argues that individuals unnecessarily subject themselves to cluttered fragmented lives by constant attention to emails, text and voice messages rather than leaving everything to accumulate for attention in a dedicated time slot. Gershuny explained this behaviour in terms of busyness having become the new high status signifier (Gershuny, 2005), a claim subsequently endorsed by Sullivan and Gershuny (2018) and Veal (2016). They claim that the situation described and criticised by Veblen in America at the end of the nineteenth century has been inverted. Veblen claimed and deplored how in America high status had migrated from producers to a work-free rentier leisure class who had the time and money to engage in the conspicuous consumption of goods with minimal use value (Veblen, 1899). Nowadays important people are always short of time. Others must wait for an appointment then expect to be made to wait again: a reminder that their own time is less valuable. A micro-issue within these debates has been whether or not domestic gadgets reduce domestic work time (Bittman et al., 2004; Gershuny, 2004).

The value of all household members completing diaries has been demonstrated in studies of how, and the extent to which, couples are able to coordinate their routines, and with whom specific activities are practised. In the UK it has been shown that the activities most often shared by couples are housework and watching television, and that out-of-home leisure is usually enjoyed with other companions (Gatenby, 2004).

My conclusions are, first, that time use evidence can resolve contentious issues decisively. Interventions using time use evidence are high quality in scientific impact. Second, that these interventions have been and are still infrequent and that the UK time use surveys have been seriously under-used in UK leisure studies. All the data sets have been harmonised and are accessible by bona fide researchers at the Centre for Time Use Studies at University College London. Alternatively, the potential value of these surveys might have been over-estimated by their committed supporters who have secured the funding for data collection. These possibilities are assessed below using the series of special UK Covid-19
lockdown surveys commissioned by the Office for National Statistics (ONS) between 2020 and 2022.

2. The UK Pandemic Lockdown Series

During the Covid-19 pandemic in 2020 and 2021 the UK population was subjected to a series of on-off restrictions on social interaction. The periods of heaviest restrictions became known as “lockdowns”. Similar restrictions were being imposed in many other countries, but uniquely the impact of the restrictions on the UK population’s uses of time was monitored in a special series of time use surveys of nationally representative samples. An innovation was that all the lockdown surveys were conducted online. Two of the pandemic series were conducted during, and one was between lockdowns (Office for National Statistics, 2020a, 2020b, 2021). The impact of the restrictions is best judged by comparisons with the most recent pre-pandemic survey which was in 2014/15 (Gershuny & Sullivan, 2019). Whether changes enforced during the lockdowns were enduring can be assessed in the results from the final special pandemic survey which was in March 2022 (Office for National Statistics, 2022), nine months beyond the final lockdown and a month after all remaining restrictions, mainly on international travel, had been lifted in February 2022. The immediate impact of restrictions is best judged by comparing the findings of the first lockdown survey (March-April 2020) with its closest predecessor in 2014/15 (Roberts, 2020). There were two interim pandemic surveys, in September-October 2020 and March 2021, the former between lockdowns and the latter during the final pandemic lockdown. The enduring effects of the lockdowns are best judged by comparing time uses in March 2022 with those in 2014/15. As reported elsewhere (Roberts, 2023), compared with the first lockdown in March-April 2020, by March 2022 there had been a movement back towards, but short of the old 2014/15 normal.

The overall changes in the population’s uses of time have been reported elsewhere (Roberts, 2020, 2023). Total paid work time had risen from an average of 165 to 181 minutes per day between 2014/15 and March 2022, but with a substantial shift from workplaces (150 to 116 minutes) to working at home (15 to 65 minutes). Travelling time declined from an average of 84 to 52 minutes per day. This was due partly to the lockdown shift towards working from home continuing post-lockdowns. A net effect was an increase in total leisure time from an average of 312 to 342 minutes per day. Increases were recorded in all the main categories of leisure distinguished in the surveys: physically active recreation, do-it-yourself and gardening, and entertainment and socialising. There were other smaller shifts: downwards in studying and unpaid child care, and upwards in unpaid housework.

Some of these changes have been spurts in pre-pandemic trends, like the transfer of paid work to homes which had already been enabled by the Internet. Other lockdown changes have arrested or reversed former trends, studying and child-care time being the main examples. However, none of the changes have been ex-
experienced to the same extent, at all, or in the same way, by all socio-demographic
groups. A minor change in the total population’s time budget can be a major
change within the group most affected. The pandemic lockdowns forced major
and unusually rapid changes in people’s daily routines. They created a quasi-
experimental demonstration and test of time use surveys’ ability to chart changes
in people’s life precisely, and to identify sections of the population who were
most and least affected by the changes.

The following passages disaggregate the UK population and show how the pan-
demic lockdowns changed lives in different ways for men and women, in different
age groups and income bands. Table 1 presents just the 2014-15 (pre-pandemic),
March-April 2020 (first lockdown) and March 2022 (post-lockdown) results.
These highlight the dramatic shifts in time use that were enforced during the
first lockdown, and in March 2022 what may be, but will not necessarily be, en-
during changes—a new normal.

2.1. Gender

Evidence is sometimes collected to test a pre-conceived theory. This was not the
case in the UK’s pandemic time use surveys. The principal consideration was to
facilitate comparisons with the results in the immediately preceding time use
survey in 2014/15. It is up to users of the findings to spot trends and differences
that are plausibly inter-connected and which have a common driver. Anyone

<table>
<thead>
<tr>
<th>Table 1. Average daily time in minutes by sex.</th>
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<tbody>
<tr>
<td>--------</td>
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<tr>
<td>Travelling and transport, including walking</td>
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<tr>
<td>Working not from home</td>
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<tr>
<td>Working from home</td>
</tr>
<tr>
<td><strong>Total work</strong></td>
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<tr>
<td>Study</td>
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<tr>
<td>Unpaid childcare</td>
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<td>Unpaid housework</td>
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<tr>
<td>Sleep and rest</td>
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<tr>
<td>Personal care, including eating and drinking</td>
</tr>
<tr>
<td>Physically active recreation</td>
</tr>
<tr>
<td>Gardening and DIY</td>
</tr>
<tr>
<td>Entertainment and socialising</td>
</tr>
<tr>
<td><strong>Total leisure</strong></td>
</tr>
<tr>
<td>Other</td>
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</tbody>
</table>
can participate: all theories start life as conjectures.

I can spot two configurations in Table 1. The first is towards genderless time use: a spurt in a pre-pandemic trend (Robinson & Godbey, 1999). Formerly this trend was proceeding more slowly (Segal, 1997; Sullivan, 2000). The second configuration is preserving male privilege.

The trend toward genderless time use is evident in women increasing paid work time by an average of 28 minutes per day while among men the increase is just six minutes. So the gender gap narrows. Simultaneously, women reduce their time spent on unpaid domestic work (housework and child care) by 25 minutes on average while men take over contributing an additional 24 minutes per day. The trend is towards sex equality though time use remains far from completely genderless. Following the lockdowns men were still spending an average of 204 minutes per day on paid work against women’s 160 minutes. Women were spending 208 minutes on unpaid domestic work against men’s 146 minutes. Nevertheless, the lockdowns were accompanied by a shift towards equality in total work time (paid and unpaid). Pre-pandemic women led by 45 minutes which was reduced to 18 minutes following the lockdowns.

The evidence on time use in the UK before and even following the lockdowns is incompatible with earlier claims that over their lifetimes men and women have performed similar amounts of work, paid plus unpaid (Bittman & Wacjman, 1999). This claim appears to have been correct up to the end of the twentieth century. In the UK 2000 time use survey the sexes’ total work times were very similar (365 hours for men and 370 for women) (Roberts, 2006). Since then women’s total work time has barely changed, whereas among men there was a dip from 365 to 320 hours between 2000 and 2014/15, then a partial recovery during the pandemic lockdowns to 350 minutes in March 2022. Men were still doing less but the direction of change during lockdowns was back towards the equality of 2000 and before. The most plausible driver here is women pushing into the workforce, first achieving an employment rate equalling that of men, and now pushing towards equality in hours worked and representation in higher-paid occupations. Women appear to have learnt that they cannot rely on male providers for lifetime economic security.

The second set of linked trends and differences that can be disentangled from Table 1 can be described as the maintenance of male privilege. Prior to the pandemic men had more leisure time than women: an average of 49 more minutes per day. Following the lockdowns men’s lead had stretched to 60 minutes. Men had added an average of 25 minutes to their daily leisure while women added just 14 minutes. This had been possible on account of men shifting the greater amounts of paid work time from workplaces to their homes: 25 minutes compared with just 14 minutes by women. Men were thereby able to make the greater savings on travelling time: 36 minutes on average compared with 28 minutes by women. This is why men were able to take-on more unpaid domestic work while still extending their lead over women in leisure time. It is relevant here that men (where present) normally remain a family’s main “breadwinner”. They still
spend more time than women going out to earn livelihoods, and also work longer than women at home in their paid jobs. Women are still more likely than men to work part-time, and these jobs tend to be paid less per hour than full-time jobs. Also, since the 1970s staff in higher paid jobs (mainly men) have worked longer hours per week (Murphy, 2022). Men have retained their traditional (main breadwinner) justification for retaining the larger amounts of money and time to spend on themselves (see, for example, Barrell et al., 1989).

2.2. Age

Unlike sex and gender, unless death intervenes we all experience life in successive age groups. Time use data opens one window on how people’s daily routines change as they journey through life. The evidence from successive time use surveys also enables us to specify how life in specific age groups has changed over historical time, in our case from before to following the pandemic lockdowns.

These lock downs left some similar changes in the lives of all age groups— young adults, those in mid-life, and seniors. They all emerged from the lock downs spending more time in paid work, with some work shifting from workplaces to homes, thus saving on travelling time, resulting in increases in leisure time. In the 2000 time use survey UK 25 - 44 year olds were spending an average of 248 minutes per day in paid work. This had declined by 2014/15, and post-lockdown hours spent in paid work were returning towards the 2000 level. Here the changes have been in all age groups. Other changes from pre- to post-lockdowns are concentrated within specific age groups, making major changes in their lives. The main changes of this kind are less studying by young adults, and less child care by grandparents, the 60-plus age group.

In Table 2 and Table 3 the middle columns in Table 1, the results from the first lockdown survey in March–April 2020, are omitted, enabling an clearer focus on changes from before to following the successive lockdowns.

Both pre- and post-lockdowns adults in mid-life worked longer than other age groups and had the least leisure time. They were experiencing the ”life cycle squeeze“ of new household and family formation and maturation when demands on time and money peak (Estes & Wilenski, 1978; Zuzanek & Mannell, 1998). They were followed closely by the young adult age group whose members would have started to feel “the squeeze”. The 60-plus ”empty nest“ age group stands out as exceptional in these respects.

The decline in time spent studying was recorded only in the young adult age group. The only members of this age group who could reduce time spent studying were students who would have been in further or higher education, and in some cases completing upper secondary education. The evidence from the pandemic time use surveys suggests that they approximately halved time spent studying during the lockdowns and this new norm was continuing post-lockdowns in 2022. During the lockdowns, and indeed throughout the 2020-21 academic year, learning and teaching in UK higher education went online, then post-lockdown
Table 2. Average daily time in minutes by age groups.

<table>
<thead>
<tr>
<th></th>
<th>39 and under</th>
<th>40-59</th>
<th>60 and Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travelling and transport, including walking</td>
<td>91</td>
<td>53</td>
<td>94</td>
</tr>
<tr>
<td>Working not from home</td>
<td>198</td>
<td>151</td>
<td>192</td>
</tr>
<tr>
<td>Working from home</td>
<td>14</td>
<td>89</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total work</strong></td>
<td><strong>212</strong></td>
<td><strong>240</strong></td>
<td><strong>214</strong></td>
</tr>
<tr>
<td>Study</td>
<td>33</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Unpaid childcare</td>
<td>49</td>
<td>49</td>
<td>25</td>
</tr>
<tr>
<td>Unpaid housework</td>
<td>109</td>
<td>116</td>
<td>153</td>
</tr>
<tr>
<td>Sleep and rest</td>
<td>539</td>
<td>549</td>
<td>520</td>
</tr>
<tr>
<td>Personal care, including eating and drinking</td>
<td>133</td>
<td>128</td>
<td>135</td>
</tr>
<tr>
<td>Physically active recreation</td>
<td>21</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>Gardening and DIY</td>
<td>5</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Entertainment and socialising</td>
<td>240</td>
<td>256</td>
<td>257</td>
</tr>
<tr>
<td><strong>Total leisure</strong></td>
<td><strong>266</strong></td>
<td><strong>282</strong></td>
<td><strong>288</strong></td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 3. Average daily time in minutes by household income bands.

<table>
<thead>
<tr>
<th></th>
<th>Up to £1700 per month</th>
<th>£1700 - £3300</th>
<th>Over £3300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travelling and transport, including walking</td>
<td>65</td>
<td>35</td>
<td>85</td>
</tr>
<tr>
<td>Working not from home</td>
<td>70</td>
<td>47</td>
<td>174</td>
</tr>
<tr>
<td>Working from home</td>
<td>6</td>
<td>23</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total work</strong></td>
<td><strong>76</strong></td>
<td><strong>70</strong></td>
<td><strong>185</strong></td>
</tr>
<tr>
<td>Study</td>
<td>17</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Unpaid childcare</td>
<td>28</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Unpaid housework</td>
<td>169</td>
<td>187</td>
<td>145</td>
</tr>
<tr>
<td>Sleep and rest</td>
<td>553</td>
<td>549</td>
<td>528</td>
</tr>
<tr>
<td>Personal care, including eating and drinking</td>
<td>152</td>
<td>163</td>
<td>141</td>
</tr>
<tr>
<td>Physically active recreation</td>
<td>16</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Gardening and DIY</td>
<td>17</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Entertainment and socialising</td>
<td>337</td>
<td>355</td>
<td>264</td>
</tr>
<tr>
<td><strong>Total leisure</strong></td>
<td><strong>370</strong></td>
<td><strong>396</strong></td>
<td><strong>298</strong></td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>
most universities adopted “hybrid” teaching as the new normal. Students appear to have acquiesced whether enthusiastically or reluctantly. In the lockdown years academic results improved despite students spending less time studying. It is usually supposed that universities set syllabuses that are observed by students, and set standards of assessment against which students are judged. However, it is possible that syllabuses and assessments are adjusted to students’ schedules. Everyone seems content with the outcomes.

Child care time peaks, but time spent on housework is lowest, in the young adult age group. Young adults spend more time than other age groups sleeping and resting. All this applied in 2000, in 2014-15 and post-lockdowns in 2022. Young adults spent more time on physically active leisure that those in mid-life, but less time than seniors in 2022. In 2000 time spent on physically active recreation declined gradually and steadily with advancing age. Post-lockdown this had changed. Seniors were then averaging the most minutes per day on recreational exercise, followed by young adults, with those in mid-life the least involved. This does not necessarily mean that more seniors had become physically active. Alternatively those already active could have become even more so.

Later life is accompanied by greater time use upheavals than movements from young to mid-adulthood. Paid working time drops from around 240 minutes on an average day to around just 50 minutes in the 60 and over age group. Time devoted to housework and personal care both rise and peak in later life. These activities appear to expand or shrink according to how much time is otherwise unaccounted for. By 2022 seniors were spending more time than any of the other age groups not only on physically active leisure, but also on gardening and do-it-yourself, and on socialising and entertainment. Seniors had around 400 minutes of leisure time per average day compared with around 300 minutes in the younger age groups.

In the 2000 time use survey the average time per day devoted to child care by the 65-plus age group was nil. By 2014/15 active grandparenting had become more common: the average time was 17 minutes. This had been cut to eight minutes by 2022. How the seniors felt about each change—upwards and downwards—is likely to vary from household to household. Other sources report that seniors enjoy caring for their grandchildren, but only if they are not relied on to do this regularly when active grandparenting then becomes a chore, preventing participation in more occasional enjoyable activities (for example see Wearing, 1996).

2.3. Income

Table 3 splits respondents in March 2022 into the same household income bands as were used in 2014/15 when they divided the population into three roughly equal-sized groups. Given the pace of monetary inflation since 2014/15, the figures will look low to present-day readers, which makes it all the more noteworthy if not surprising that the differences between income bands in 2014/15 had changed so little in March 2022.

Respondents in the top income band were doing the most paid work per av-
Average day in 2014/15 and in March 2022 after the lockdowns. They had increased their paid working time from 226 to 244 minutes. The middle income band’s average had risen from 185 to 203. This gave the top band a lead of exactly 41 minutes in both surveys. The evidence in Table 3 presents the same gradient as was recorded in the 2000 time use survey when respondents were placed in occupational classes, and average working time rose progressively from the working class through intermediate classes and was highest among managers and professionals (Roberts, 2006). In 2022 the middle income band had caught up. The main difference was that between 2014/15 and 2022 the top income band had shifted the most paid working time out of workplaces: 69 minutes per day less compared with 30 minutes in the middle income band, and into their homes where the top and middle income bands were working 87 and 48 minutes longer. The implication from this, coupled with the findings on gender differences in Table 1, is that the biggest shifters were those best able to do so, namely men in professional occupations who could carry the office in their laptops then connect to workplace sites from their homes (Hobsbawm, 2022). A result of this shift in paid work was that the top income band made the greatest savings on travelling time, a reduction of 44 minutes a day on average against 28 minutes in the middle income band. The top income band had thereby made the greatest gains in leisure time: up by 42 minutes a day against 29 minutes in the middle income group. However, the top band still had less total leisure time than all the other bands. Despite this, they equalled other bands in time spent gardening and on do-it-yourself, and spent the most minutes per day on physically active recreation. They spent far less time socialising and consuming entertainment which, since 2014/15, had continued a longer term historical shift from in-person to media with the rise of streaming services and social media sites.

Trends in time use in the bottom income band are not a scaled down version of trends at the top. They are completely different. Total work time in the bottom group had not risen but had declined from an average of 76 to 70 minutes per day. Travelling time was down from 65 to 35 minutes. Most of this time ‘saved’ must have been from non-work related travel. The bottom group had trimmed time from sleep and rest and unpaid child care. There had been increases in time spent on personal care and housework. None of these trends had occurred among the middle or highest income bands. The bottom band had gained leisure time, but less than the top band. Despite this, the bottom band had preserved a massive lead over its comparators: 396 minutes on an average day in 2022 against 327 in the middle and 312 at the top.

3. Discussion
3.1. Mysteries

The pandemic and previous survey data sets leave problems to solve. One is the shrinkage of child care time, mainly within the 60-plus, grandparenting age group. Visits to other households were not permitted during the lockdowns. This ap-
plied to children who were “locked out” of school, supposedly learning at home. This should have increased someone’s child care time. The missing time cannot be found within the time use data presented above. One possible solution to this mystery is that when a parent who was working at home was the child carer, the parent named “paid work” as the principal activity. “Child care” may be discovered within the “other activities” category if this is ever thoroughly excavated.

Another mystery is the scarcity of furloughed workers. Between the start and end of the pandemic lockdowns over nine million employees and self-employed persons who were locked out from work by government command. They had 80 percent of lost earnings paid by the government. None of the dips in average minutes doing paid work match the nine million figure, which amounted to over a quarter of the workforce. In the March 2021 (final lockdown) survey, the population was averaging more work per day than in the pre-pandemic 2014/15 survey. This seems incompatible with the scale of furloughing. This is further evidence of considerable fraud, as others suspect (for example, Adams-Prassl et al., 2020).

3.2. Annoyances

The first is raising the lower age limit of respondents from 16 to 18 in the lockdown surveys. This has made the pandemic data incompatible with all earlier results unless the under-18s are excluded from preceding time use surveys. The earliest UK time use surveys sampled from age 15 upwards. Fifteen was the minimum school-leaving age at that time, in 1961. Fifteen was retained as the minimum age in the 1974-75 survey despite the school-leaving age having been raised to 16 in 1972. The SCLEI survey in 1984-85 sampled from age 14. Sixteen was the lower age limit in 2000-01, 2005 and 2014-15. With hindsight, it would be useful today to have sampled from at least age 13 then upwards from 1961 onwards. The under-15s are capable of completing time use diaries with assistance from parents when necessary. In 2000-01 a special questionnaire was used to record the time use of 8 - 15 year olds (Fisher, 2002). It would now be useful to be able to chart how time use by 14 - 24 year olds has changed as participation in full-time education has spread progressively up to age 16, then in upper secondary, and is still ongoing in tertiary education. This will be easier now that the surveys have gone online, as have most children from age 10 upwards (Ofcom, 2021). Annoyingly, we lack the evidence to discover whether 14 - 24 year olds have gained more leisure time, or whether their time has become more congested as they try to combine full-time study and part-time jobs while (in most cases) lacking personal motor transport.

Post-lockdowns it seems perverse to have excluded everyone aged under 18 from the pandemic surveys. It would have been possible to survey all aged 12 and above online (Ofcom, 2021) Children and young people were the age groups most affected by the lockdowns which robbed them of most contact with friends at school and in sports and cultural clubs. Even before the pandemic there was
evidence of a broadband cohort effect which is likely to endure into later life stages (Geraci et al., 2022).

Another annoyance is the exclusion of the over-65s from the earliest UK time use studies in 1961 and the mid-1970s. This can be difficult to understand today given the attention that the numerically swelling senior cohorts now receive. It was different in the mid-20th century, in industrial Britain, when there was a relentless focus on the workforce, and more specifically on its male members. Studies of the work-leisure relationship at that time were invariably studies of males. Hence the indictment by leisure studies' second wave feminist critics of the lack of attention to women. The post-1945 “settlement” between capital and labour involved the construction of strong welfare states; safety nets that provided security from cradle to grave. The welfare state was supposedly ensuring the welfare of children and the retired. For the workforce the “settlement” required regular rises in real incomes, and parallel increases in the time in which workers and their families could enjoy the fruits of the labour of those who were in employment. Standards of living were monitored in economic statistics. Time use surveys were to provide complementary data on uncommitted and other necessary uses of time, and the residual “free” time of the economically active population. I suspect that the data would show average working time declining and leisure time continuing to increase after the 1970s if the entire UK adult populations had been included in the time use surveys of the 1960s and 70s.

3.3. Under-Used and/or Over-Hyped?

Under-used is certainly true. There are huge quantities of unanalysed, now digitalised data. Gershuny and Sullivan (2019) have analysed changes in time use in the UK since the first survey in 1961. They display vividly in diagrams how uses of typical weekdays, Saturdays and Sundays have changed in different ways for men and women, but no such differences by age and socio-economic status are analysed. Most chapters in their book are based solely on the most recent 2014-15 survey which the authors designed.

One chapter in Gershuny and Sullivan’s book sets the UK in an international context. It does not use HETUS which has been little used since the harmonised data sets became available early in the 21st century. Similarities and differences between countries can be portrayed in statistics, but always need to be explained with reference to national histories and cultures, geography and climate (MacInnes, 2006; Sullivan & Gershuny, 2001; Gershuny & Fisher, 2019). Countries do not fit neatly into a limited number of types of time use such as Gershuny (2000) constructed experimentally.

Gershuny and Sullivan (2019) set the UK in an international context using their own Multi-national Time Use Study (MTUS) of countries for which there are several waves of time use surveys with nationally representative samples. From the data they construct the large blocks of time accounted for by necessary and committed uses leaving a residue of leisure time. Their analysis is restricted
to 20 - 60 year olds in order to accommodate all the countries’ data. They show that the UK is typical in trends over time accounted for by paid work among 20 - 60 year olds which declined up to the 1970s resulting in increases in leisure time. Then the trend stopped. A problem with this revelation from time use evidence, published in 2019, is that its main finding (normal paid working time ceasing to decline from the 1970s onwards) had been known for over 20 years.

We need to understand why time use data has been under-analysed. Little use has been made of “other” than main activities per 10 minute slot and likewise with “where” respondents were, “with whom”, and their “feelings” at the time. These matters are explored more effectively in multi-methods studies of smaller samples, such as Young and Willmott’s research among London families in the early-1970s (Young & Willmott, 1973). They show how couples “work” on coordinating their schedules. Sullivan’s (1996) multi-methods study found that couples’ most enjoyable times were spent together, preferably interacting with other couples. This can be set alongside the larger-scale 2000 time use survey data to show how difficult it could be to achieve these occasions (Gatenby, 2004).

4. Conclusion

Under-used “yes”; over-hyped definitely “no”. Time use surveys can do everything that their earliest and later advocates have claimed. They open a window showing one important dimension of the lives that we live and how these have changed, now over a 60-year period. These surveys produce the most accurate measurements of how we divide our time between different uses. They monitor accurately trends over historical time and differences between socio-demographic groups. The pandemic surveys covering just two years, when people’s routines were subjected to a highly unusual series of disruptions, illustrate all this. However, as always expected, these surveys are best at measuring uses that command large blocks of most people’s time on most days. They are less useful for measuring the role in people’s lives of participation in most specific leisure time activities. The exceptions are television and related media, and reading. Activities that are engaged in monthly, weekly, or even less frequently can be extremely important to those who are involved, but score zero on the days about which they are questioned in a time use survey. Participation surveys which ask, “How often do you…?” or “When did you last….?” may yield less accurate estimates but still work better with most specific leisure activities.

It is certainly true that time use statistics attract less public attention and discussion than other official statistical releases. This is partly because, before the surveys went online, it was years before results were published. It is also because the sweeps have demonstrated that, except amid an event such as the Covid-19 pandemic and its lockdowns, the average time uses of populations and sub-populations change slowly. Hence the 10-year interval between sweeps is now normally observed worldwide. It is also because of the shortage of uses, and users of time use data, though these will be a valuable resource for future histori-
It has proved easier to secure funding for data collection on the time use of nationally representative samples than for the thorough analysis of the data sets for which it is necessary nowadays to be able to claim actual or potential impact, performativity, and use value. Seeking knowledge for its own sake or for future historians now sounds rather quaint.

All that said, the pandemic surveys carry important messages for leisure scholars and for the smaller networks of dedicated time use researchers. The special series of pandemic time use surveys highlight one dimension of how people’s daily routines that were disrupted during the lockdowns, and how in 2022 time use differed, and had not returned fully to its pre-pandemic normal. No other statistical time series provides so clear and precise a picture of the short-term and possible longer-term impact of the lockdowns, and differences between socio-demographic groups.

We find that the lockdowns created spurts in three longer-term trends. One is towards working from home. The second is towards genderless time use. This has been due to some domestic work being transferred from women to men during and between the lockdowns, and to women increasing their time spent in paid work by an average of more minutes per day than men. Couples’ paid workloads have therefore risen post-lockdowns, which will have intensified the life cycle squeeze. Third, those at the top in hours of paid work and income have moved further ahead, and those at the bottom have sunk further behind. The highest income band recorded the largest increases in total paid work time, and shifted more of this work into their homes than any other groups. They had the least leisure time before and after the lockdowns, but at least equalled other groups in time spent on physically active recreation, gardening and do-it-yourself. Simultaneously, the poorest income band and the 60-plus age group have become further apart from the rest of the population. Some, but not most seniors and members of the poorest households are the same persons, but in general, the UK’s retired are now better off financially than child-rearing families when incomes are moderated for household size and composition. The poorest emerged from the lockdowns doing even less paid work than before, and both they and seniors had even more leisure time than previously, and had lengthened their leads ever other groups.

The pandemic surveys show, perhaps surprising many leisure scholars, that leisure time can increase without any reduction in paid work time by the whole population. We can see from the 60-plus years of UK time use studies that the decline in minutes worked per average day by a full-time employee ended in the 1970s, but we can also see that the longer term growth in total leisure time did not end then. The appearance, an illusion, is due to the earliest time use studies failing to include anyone aged over 60, and therefore this age group’s necessary omission from subsequent data sets in analyses that trace changes back to the 1960s and 70s. We may conclude that how much leisure time in total is available in a society can be less important for its possible uses than how the leisure time
is distributed.

However, the value of time use surveys in leisure studies is limited. The surveys are best at measuring continuities and changes in large blocks of time, like all leisure time rather than specific occasions and uses. These are better researched using smaller samples, focused on specific activities or socio-demographic groups, employing multiple methods which may sometimes include time diaries.

**Conflicts of Interest**

The author declares no conflicts of interest regarding the publication of this paper.

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