Supplemental Table 1: Time Use Item Definitions

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| **Item** | **How was the item assessed or developed?** | **Response Options** | **Category of Item** |
| Dating | On average, how often (if ever) do you go out with a date? | 1="Never" 2="Once a month or less" 3="2 or 3 times a month" 4="Once a week" 5="2 or 3 times a week" 6="Over 3 times a week" | Social/Unsupervised Time |
| Parties | How often do you do each of the following?  Go to parties or other social affairs | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Social/Unsupervised Time |
| Time out without a parent | During a typical week, on how many evenings do you go out for fun and recreation? (Don't count things you do with your parents or other adult relatives.) | 1="Less than one evening per week" 2="One evening" 3="Two evenings" 4="Three evenings" 5="Four or five evenings"  6="Six or seven evenings per week" | Social/Unsupervised Time |
| Riding for fun | How often do you do each of the following?  Ride around in a car (or motorcycle) just for fun | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Social/Unsupervised Time |
| Social media | How often do you do each of the following?  Visit social networking websites (like Facebook) | 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Social/Unsupervised Time |
| Visiting friends | How often do you do each of the following?  Get together with friends informally (in your free time) | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Social/Unsupervised Time |
| Leisure time spent alone | How often do you do each of the following?  Spend at least an hour of leisure time (free time) alone | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Social/Unsupervised Time |
| Sports | How often do you do each of the following?  Actively participate in sports, athletics or exercising | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Recreation |
| Movies | The next questions ask about the kinds of things you might do. How often do you do each of the following? Go to movies | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Recreation |
| Concerts | How often do you do each of the following? Go to music concerts | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Recreation |
| Periodicals | Maximum of two questions: How often do you do each of the following? Read magazines; How often do you do each of the following? Read newspapers | 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Recreation |
| Shopping | How often do you do each of the following?  Go to a shopping mall | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Recreation |
| Religious attendance | How often do you attend religious services? | 1="Never" 2="Rarely" 3="Once or twice a month" 4="About once a week or more" | Community |
| Community service | How often do you do each of the following?  Participate in community affairs or volunteer work | 6=”Every day” 5="Almost every day" 4="At least once a week" 3="Once or twice a month" 2="A few times a year" 1="Never" | Community |
| Time spent working | On the average over the school year, how many hours per week do you work in a paid job? | 1="None" 2="5 or less hours per week" 3="6 to 10 hours per week" 4="11 to 15 hours per week"  5="16 to 20 hours per week" 6="21 to 25 hours per week" 7="26 to 30 hours per week" 8="More than 30 hours per week" | Work |
| Academic performance | The next questions are about your experiences in school. Which one of the following best describes your average grade in this school year? | 9="A (93-100)" 8="A- (90-92) 7="B+ (87-89)" 6="B (83-86)" 5="B- (80-82)" 4="C+ (77-79)" 3="C (73-76)"  2="C- (70-72)" 1="D (69 or below)" | Academic |
| Homework | About how many hours do you spend in an average week on all of your homework including both in school and out of school? | 1="0 hours" 2="1-4 hours" 3="5-9 hours" 4="10-14 hours" 5="15-19 hours" 6="20-24 hours" 7="25 or more hours" | Academic |

Supplemental Table 2: Time Use Profiles of US adolescents from 1991 to 2020

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| --- | --- |
| Time Use Group | Definition |
| 1. Low Social/Disengaged | Low levels of “Social/Unsupervised Time” variables, low levels of sports/other activities. |
| 2. Low Social/Engaged | Low levels of “Social/Unsupervised Time” variables, high levels of sports/other activities. |
| 3. High Social/Disengaged | High levels of “Social/Unsupervised Time” variables, low levels of sports/other activities. |
| 4. High Social/Engaged | High levels of “Social/Unsupervised Time” variables, high levels of sports/other activities. |
| 5. Workers/Disengaged | Eleven hours or more at a paid job per week, low levels of sports/other activities. |
| 6. Workers/Engaged | Eleven hours or more at a paid job per week, high levels of sports/other activities. |

Supplemental Table 3: Mplus Metrics for Various k’s\*

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| Number of Groups | BIC | LRT p-value | Entropy |
| 3 | 20431525.24 | <.0001 | 0.815 |
| 4 | 20333835.74 | <.0001 | 0.780 |
| 5 | 20268479.44 | <.0001 | 0.756 |
| 6 | 20151961.66 | <.0001 | 0.848 |
| 7 | 20119378.70 | <.0001 | 0.856 |
| 8 | 20089942.39 | 0.9999 | 0.853 |

\*LRT suggested that 8 groups was not superior to 7. Analytic k was reduced to 6 due to high overlap between 6 and 7 group structure: the 7 group structure was identical to the 6 group structure, adding only a very small (1.2% prevalence) group marked by high concert attendance.