Summary

In this file, I use the most recent data available to update Tables 1-5 and Figures 1-5 of "A Twenty-First Century of Solitude: Time Alone and Together in the United States." While the published paper used ATUS data from 2003 to 2022, this file extends the article's results to 2024.

Compared to 2022, the main differences are that:

- Time alone has increased by a further 1.6 percentage points of eligible time (roughly 10 minutes per day), with larger increases for those with a college degree, for those in medium- or high-income households, for females, and for those who are non-White.
- Deacreasing time spent with people from the respondent's own household accounts for the population-wide increase in time alone. Time spent with people from other households has increased slightly between 2022 and 2024.

In this way, some of the trends observed between 2003 and 2022 have continued:

- Time alone, which increased from 43.5% to 49.7% of eligible time between 2003 and 2022, increased further, to 51.3% as of 2024.
- Steeper increases of time spent alone for non-White individuals continued further between 2022 and 2024.

At the same time, some of the trends observed between 2003 and 2022 have partially reversed:

- While time alone increased most between 2003 and 2022 for less-educated individuals, males, and those from lower-income households, these three groups of individuals had the smallest increase in the share of time spent alone since 2022. So, the educational, income, and gender gradients of time alone were somewhat weaker in 2024 than they were in 2022.

Tables

Table 1: Summary Statistics: Time Spent in Eligible Activities

	2003	2019	2022	2024
Childcare	0.51	0.45	0.44	0.47
Eating	1.23	1.18	1.23	1.24
Home Production	1.76	1.67	1.76	1.88
Leisure At Home	3.79	4.06	4.28	4.13
Leisure Outside	1.36	1.20	0.99	1.01
Other Eligible Time	2.61	2.43	2.21	2.26

Notes: This table presents time spent in eligible activities (hours per day). These are activities, excluding work, for which a survey respondent provides information on the identity of the person with whom the activity was performed. The total amount of eligible time is 11.27 hours per day in 2003, 11.00 hours per day in 2019, 10.91 hours per day in 2022, and 11.00 hours per day in 2024.

Table 2: Summary Statistics: Average Time Alone, Average Time with Others, and Sample Sizes

	Time Alone				With Indivs. from Other HHs			With Indivs. from the Same HH			Count				
Demographic Group	2003	2019	2022	2024	2003	2022	2024	2003	2022	2024	2003	2019	2022	2024	All Years
Entire Sample	0.435	0.487	0.497	0.513	0.219	0.143	0.148	0.402	0.393	0.374	19,757	9,183	7,970	7,507	243,079
≤High School	0.429	0.504	0.515	0.523	0.220	0.135	0.145	0.401	0.374	0.359	8,465	2,923	2,296	2,100	89,747
Some College	0.440	0.488	0.509	0.526	0.231	0.153	0.169	0.386	0.374	0.341	5,520	2,530	2,072	2,005	67,470
≥College	0.442	0.467	0.473	0.495	0.205	0.145	0.138	0.419	0.423	0.408	5,772	3,730	3,602	3,402	85,862
Young (Age≤49)	0.389	0.438	0.452	0.469	0.241	0.152	0.160	0.429	0.428	0.407	11,684	4,183	3,400	3,116	126,675
Old (Age≥50)	0.510	0.544	0.548	0.562	0.184	0.132	0.134	0.357	0.354	0.337	8,073	5,000	4,570	4,391	116,404
Low HH Income	0.469	0.539	0.548	0.557	0.219	0.141	0.151	0.354	0.333	0.318	6,840	3,856	2,763	2,891	90,398
Medium HH Income	0.417	0.472	0.484	0.503	0.221	0.144	0.145	0.422	0.410	0.388	6,144	2,811	3,797	3,066	80,720
High HH Income	0.400	0.434	0.439	0.456	0.223	0.143	0.148	0.448	0.460	0.442	4,424	2,516	1,410	1,550	58,855
Male	0.445	0.509	0.515	0.526	0.217	0.133	0.137	0.386	0.381	0.371	8,573	4,172	3,621	3,477	107,029
Female	0.426	0.466	0.480	0.500	0.221	0.152	0.158	0.416	0.405	0.377	11,184	5,011	4,349	4,030	136,050
White, Non-Hispanic	0.439	0.474	0.486	0.503	0.218	0.148	0.147	0.404	0.403	0.388	14,495	6,252	5,542	5,283	166,006
Non-White	0.465	0.551	0.556	0.589	0.236	0.121	0.145	0.344	0.345	0.294	3,237	1,804	1,526	1,329	46,722
White, Hispanic	0.372	0.460	0.458	0.451	0.200	0.154	0.154	0.470	0.424	0.427	2,025	1,127	902	895	30,351

Notes: This table provides the fraction of eligible time that is spent alone, with individuals from other households, or with individuals from the same household. Since activities may be simultaneously performed with individuals from other households and individuals from the same household, the three shares may sum to greater than 1. "Low", "medium," and "high" income refer to terciles of family income within the sample year.

Table 3: Estimates of equation 3: Trends in Time Alone

	(1)	(2)	(3)	(4)	(5)	(6)
	$\gamma_{a,g(i),2019}$	$\gamma_{a,g(i),2020}$	$\gamma_{a,g(i),2021}$	$\gamma_{a,g(i),2022}$	$\gamma_{a,g(i),2023}$	$\gamma_{a,g(i),2024}$
Panel A: Education						
	0.048***	0.069***	0.056***	0.054***	0.053***	0.042***
High School or Less	(0.011)	(0.012)	(0.012)	(0.012)	(0.012)	(0.013)
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.005]
	0.022	0.041***	0.056***	0.033***	0.041***	0.024
Some College	(0.013)	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)
	[0.120]	[0.004]	[0.001]	[0.021]	[0.005]	[0.103]
Panel B: Household Income						
	0.028*	0.041***	0.032**	0.031*	0.020	0.025
Low Income	(0.013)	(0.013)	(0.012)	(0.015)	(0.014)	(0.014)
	[0.052]	[0.005]	[0.024]	[0.060]	[0.224]	[0.114]
	0.015	0.029**	0.031**	0.022	0.031*	0.030*
Medium Income	(0.013)	(0.013)	(0.012)	(0.014)	(0.014)	(0.014)
	[0.296]	[0.043]	[0.025]	[0.156]	[0.051]	[0.052]
Panel C: Race and Ethnicity						
	0.047***	0.039***	0.029**	0.045***	0.052***	0.062***
Non-White	(0.013)	(0.013)	(0.013)	(0.015)	(0.015)	(0.015)
	[0.003]	[0.009]	[0.052]	[0.007]	[0.003]	[0.001]
	0.029	0.017	0.018	0.034*	-0.008	-0.003
Hispanic Whites	(0.016)	(0.018)	(0.016)	(0.017)	(0.017)	(0.018)
	[0.109]	[0.384]	[0.296]	[0.073]	[0.686]	[0.863]
Panel D: Age Group						
	0.035**	0.041***	0.054***	0.076***	0.040***	0.038**
Age: 18-39	(0.012)	(0.013)	(0.012)	(0.013)	(0.013)	(0.014)
	[0.012]	[0.005]	[0.001]	[0.001]	[0.008]	[0.013]
	0.005	0.029**	0.015	0.027**	0.014	0.008
Age: 60-85	(0.012)	(0.011)	(0.012)	(0.012)	(0.012)	(0.012)
	[0.714]	[0.026]	[0.246]	[0.045]	[0.280]	[0.550]
Panel E: Sex						
	0.020*	0.023**	0.011	0.009	0.012	-0.001
Male	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)	(0.011)
	[0.080]	[0.047]	[0.317]	[0.458]	[0.296]	[0.940]

Notes: The table presents regression results based off of estimates of equation 3 of Atalay (2024). Across the different panels, the base group includes individuals with a 4-year college degree (panel A), individuals from high-income households (panel B), non-Hispanic White individuals (panel C), individuals aged 40 to 59 (panel D), and females (panel E). Each panel presents estimates from a separate, single regression of $\gamma_{a,g(i),t}$ for $t = 2019$, 2020, 2021, 2022, 2023, and 2024. In addition to these explanatory variables, the regression includes $\gamma_{a,g(i),t}$ for each t between 2004 and 2018, dummy variables $\gamma_{a,t}$ for each year between 2003 and 2022, and all of the controls listed in Figure 1 (with coefficients allowed to vary be demographic group). The sample contains 243,073 individuals. Robust standard errors are in parentheses; p-values, correcting for multiple comparisons using the method of Benjamini and Hochberg (1995) and Anderson (2008), are in square brackets. ***: p-value< 0.01; **: p-value$\in [0.01, 0.05)$; *: p-value$\in [0.05, 0.10)$.

Table 4: Estimates of Equation 6: Time Spent with People from Other Households

	(1)	(2)	(3)	(4)	(5)	(6)
	$\gamma_{o,g(i),2019}$	$\gamma_{o,g(i),2020}$	$\gamma_{o,g(i),2021}$	$\gamma_{o,g(i),2022}$	$\gamma_{o,g(i),2023}$	$\gamma_{o,g(i),2024}$
Panel A: Education						
	-0.025**	-0.020*	-0.006	-0.023*	-0.016	-0.009
High School or Less	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)
	[0.030]	[0.093]	[0.616]	[0.068]	[0.208]	[0.487]
	-0.009	-0.016	-0.012	-0.012	-0.013	0.009
Some College	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)
	[0.496]	[0.259]	[0.355]	[0.380]	[0.328]	[0.549]
Panel B: Household Income						
	-0.013	0.009	0.002	-0.003	-0.002	0.004
Low Income	(0.010)	(0.010)	(0.010)	(0.012)	(0.012)	(0.011)
	[0.328]	[0.487]	[0.883]	[0.879]	[0.882]	[0.822]
	-0.016	-0.001,	-0.006	-0.004	-0.020	-0.003
Medium Income	(0.011)	(0.010)	(0.010)	(0.012)	(0.011)	(0.012)
	[0.278]	[0.943]	[0.646]	[0.853]	[0.192]	[0.879]
Panel C: Race and Ethnicity						
	-0.034***	-0.020	-0.028**	-0.039***	-0.039***	-0.016
Non-White	(0.011)	(0.010)	(0.010)	(0.011)	(0.011)	0.012
	[0.009]	[0.191]	[0.030]	[0.004]	[0.004]	[0.328]
	0.007	0.009	0.020	0.024	0.025	0.021
Hispanic Whites	(0.013)	(0.012)	(0.012)	(0.013)	(0.014)	(0.015)
	[0.710]	[0.591]	[0.208]	[0.192]	[0.192]	[0.303]
Panel D: Age Group						
	-0.038***	-0.044***	-0.045***	-0.039***	-0.036***	-0.031**
Age: 18-39	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)
	[0.002]	[0.001]	[0.001]	[0.002]	[0.006]	[0.030]
	0.014	-0.002	0.007	0.016*	0.005	0.011
Age: 60-85	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
	[0.208]	[0.879]	[0.510]	[0.192]	[0.646]	[0.328]
Panel E: Sex						
	-0.019*	-0.010	-0.011	-0.015	-0.009	-0.017
Male	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.009)
	[0.083]	[0.328]	[0.304]	[0.192]	[0.437]	[0.191]

Notes: See the notes for Table 3. By contrast, this table examines trends in time spent on activities with people from other households.

Table 5: Estimates of Equation 7: Time Spent with People from the Same Household

	(1)	(2)	(3)	(4)	(5)	(6)
	$\gamma_{s,g(i),2019}$	$\gamma_{s,g(i),2020}$	$\gamma_{s,g(i),2021}$	$\gamma_{s,g(i),2022}$	$\gamma_{s,g(i),2023}$	$\gamma_{s,g(i),2024}$
Panel A: Education						
	-0.025	-0.051***	-0.047***	-0.034**	-0.037**	-0.032*
High School or Less	(0.012)	(0.013)	(0.012)	(0.013)	(0.013)	(0.013)
	[0.111]	[0.002]	[0.002]	[0.044]	[0.036]	[0.065]
	-0.010	-0.022	-0.050***	-0.016	-0.033**	-0.032*
Some College	(0.013)	(0.012)	(0.012)	(0.013)	(0.012)	(0.013)
	[0.564]	[0.215]	[0.002]	[0.362]	[0.044]	[0.073]
Panel B: Household Income						
	-0.017	-0.041**	-0.024	-0.021	-0.017	-0.021
Low Income	(0.013)	(0.013)	(0.013)	(0.015)	(0.014)	(0.015)
	[0.362]	[0.025]	[0.172]	[0.322]	[0.369]	[0.322]
	-0.005	-0.025	-0.022	-0.013	-0.020	-0.027
Medium Income	(0.013)	(0.013)	(0.013)	(0.014)	(0.014)	(0.015)
	[0.798]	[0.164]	[0.225]	[0.485]	[0.322]	[0.172]
Panel C: Race and Ethnicity						
	-0.022	-0.015	-0.001	-0.006	-0.014	-0.038**
Non-White	(0.014)	(0.014)	(0.013)	(0.015)	(0.015)	(0.015)
	[0.250]	[0.431]	[0.925]	[0.783]	[0.473]	[0.044]
	-0.032	-0.018	-0.015	-0.042*	-0.009	-0.005
Hispanic Whites	(0.017)	(0.019)	(0.017)	(0.018)	(0.018)	(0.019)
	[0.172]	[0.473]	[0.485]	[0.079]	[0.713]	[0.843]
Panel D: Age Group						
	0.003	-0.003	-0.013	-0.039**	-0.015	-0.012
Age: 18-39	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.014)
	[0.843]	[0.843]	[0.458]	[0.036]	[0.431]	[0.498]
	-0.009	-0.028*	-0.017	-0.031**	-0.016	-0.016
Age: 60-85	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
	[0.526]	[0.065]	[0.322]	[0.044]	[0.325]	[0.362]
Panel E: Sex						
	0.002	-0.011	0.009	0.014	0.006	0.030**
Male	(0.011)	(0.011)	(0.010)	(0.010)	(0.011)	(0.011)
	[0.853]	[0.458]	[0.485]	[0.362]	[0.653]	[0.044]

Notes: See the notes for Table 3. By contrast, this table examines trends in time spent on activities with people from the respondent's same household.

Figures

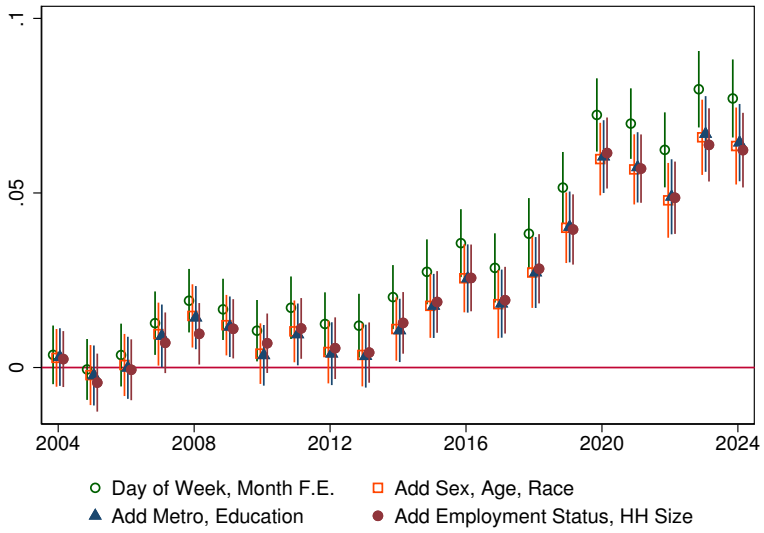

Figure 1: Trends in Time Spent Alone

Notes: This figure presents estimates of $\beta_{a,t}$ from equation 1 of Atalay (2024); 2003 is the omitted (reference) year. The basic set of controls includes a day-of-week fixed effect and a month fixed effect. "Age" is a categorical variable, describing the age of the respondent: 18-29, 30-39, 40-49, 50-59, 60-69, or 70 or older; "race" is a category variable, whether the respondent identifies as a non-Hispanic White, a Hispanic White, or a non-White individual; "education" is a categorical variable, with less than or equal to high school education, some college education, or college education or more as the three categories; "metro status" is an indicator for whether the household is in the central city of an MSA; "employment" has five categories (employed at work, employed and absent, unemployed on layoff, unemployed and looking for a job, or not in the labor force); "HH Size" refers to the logarithm of the number of individuals in the respondent's household. The figure includes 1.96 standard-error confidence intervals computed based on robust standard errors.

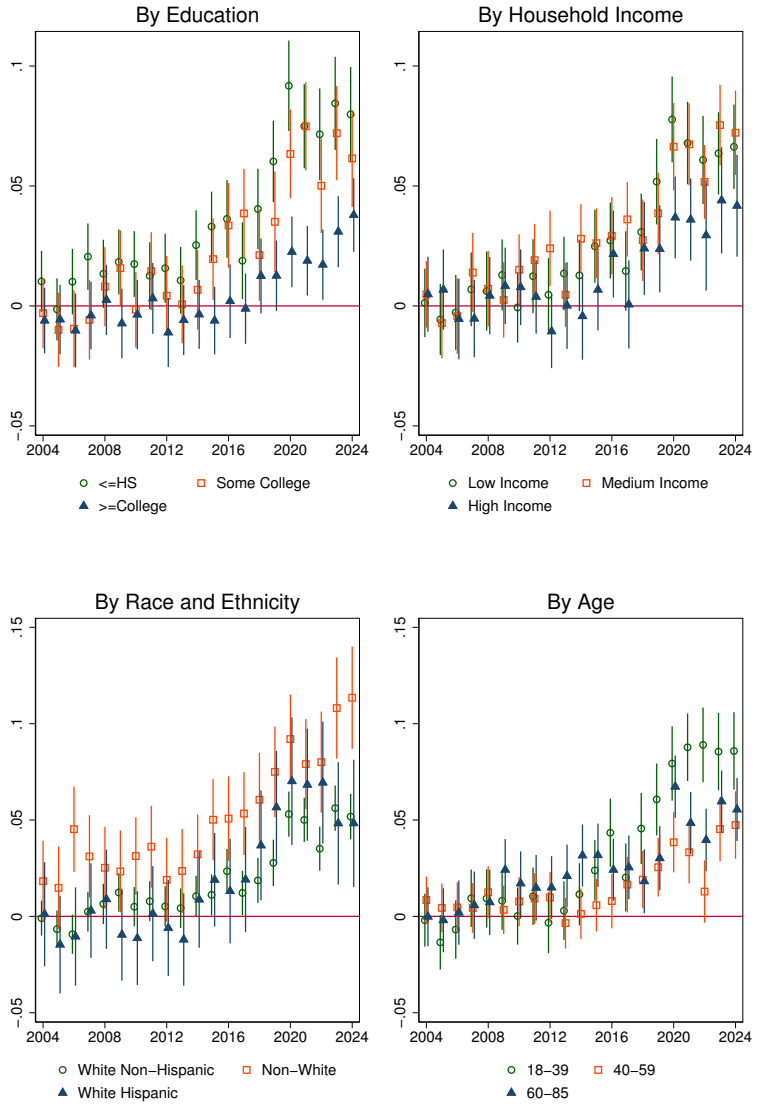

Figure 2: Trends in Time Spent Alone across Demographic Groups

Notes: Each panel presents estimates of $\beta_{a,g(i),t}$, with 2003 as the reference year. I apply the most extensive set of controls that were used in Figure 1. The figure includes 1.96 standard-error confidence intervals computed based on robust standard errors.

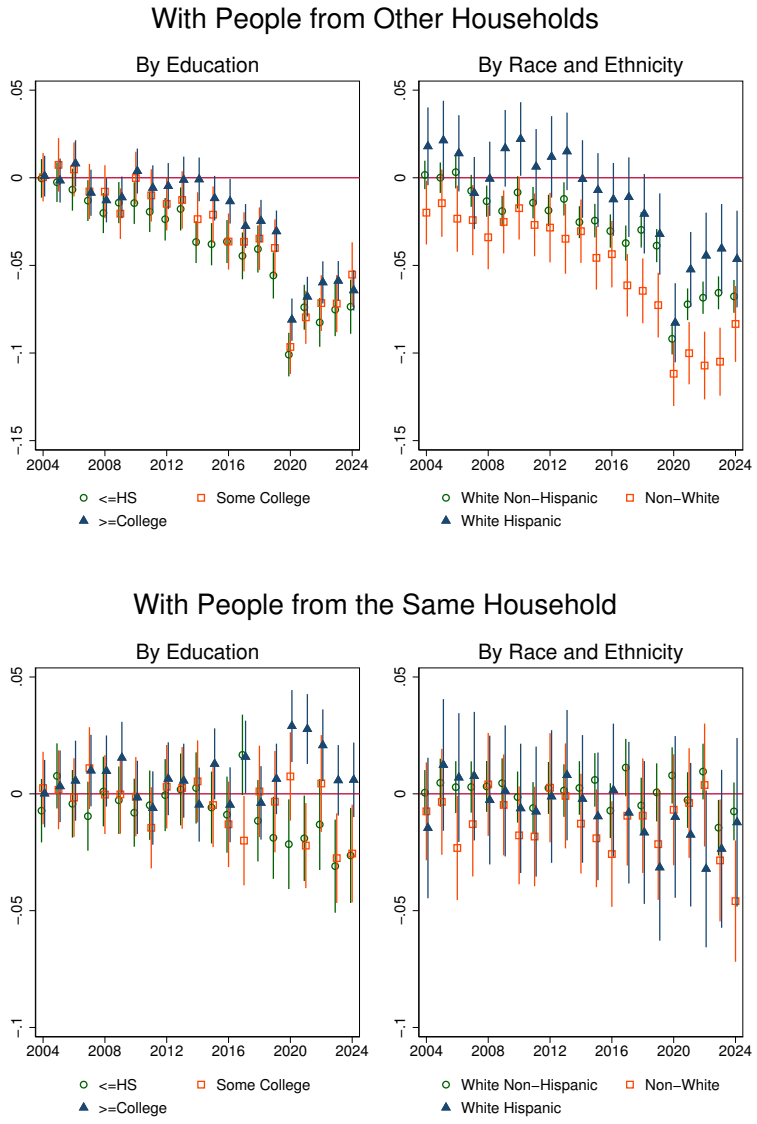

Figure 3: Trends in Time Spent with People from Other Households or One's Own Household
Notes: In each panel, I plot estimates of either $\beta_{o,g(i),t}$ or $\beta_{s,g(i),t}$ from equations 4 and 5; 2003 is the omitted (reference) year. In the left panels, individuals are grouped according to their educational background; in the right panels, individuals are grouped according to their race and ethnicity. In the top panels, the dependent variable is the fraction of eligible time spent with individuals outside of the respondent's household; in the bottom panels, the dependent variable is the fraction of eligible time spent with individuals from the respondent's household. See the notes for Figure 1 for the additional controls included in the regression. The figure includes 1.96 standard-error confidence intervals computed based on robust standard errors.

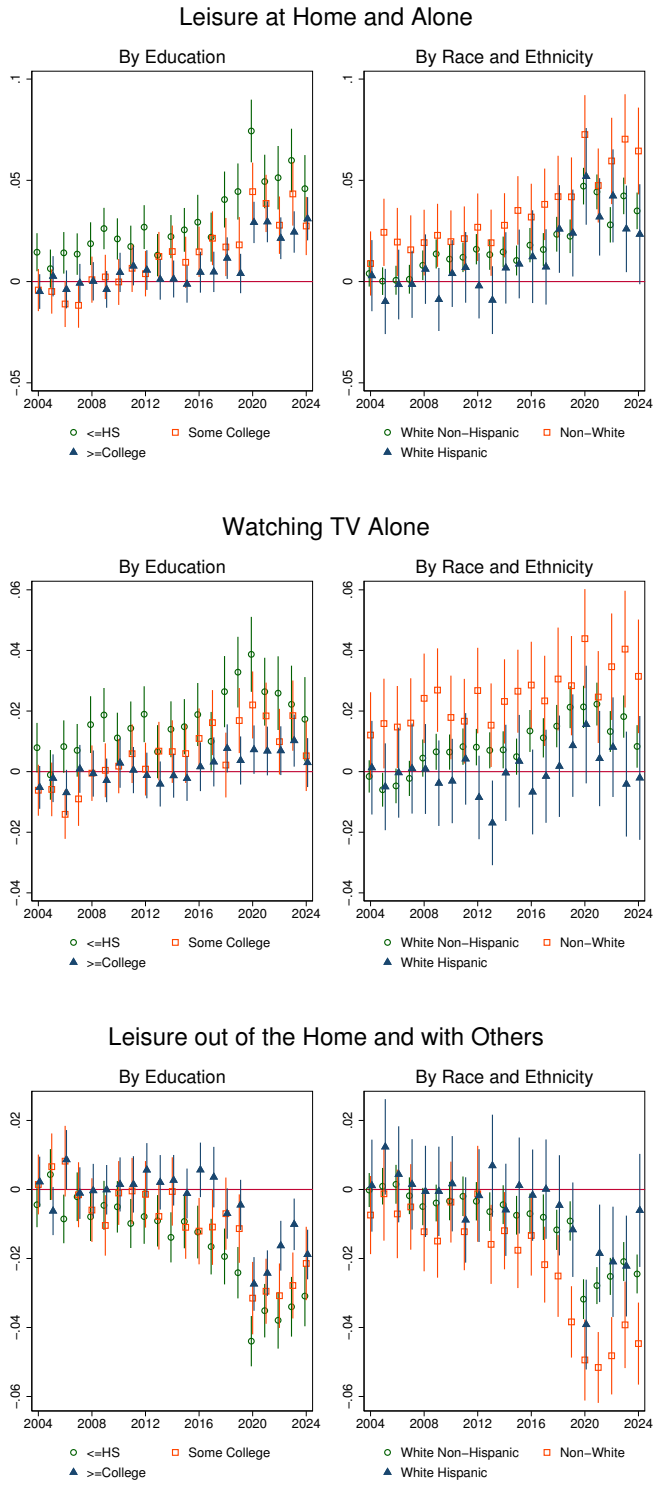

Figure 4: Trends in Time Spent on Leisure Activities: Home and Alone Versus with Others and Out of the House

Notes: The top panels present the coefficients of year dummies on the fraction of eligible time that is spent on leisure at home and alone. The middle panels present the coefficients of year dummies on the fraction of eligible time that is spent watching TV at home and alone. The bottom panels present the coefficients of year dummies on the fraction of free time that is spent on leisure outside of the household and with others. In each panel, 2003 is the omitted year. See the notes for Figure 1 for the additional controls included in the regression. The figure includes 1.96 standard-error confidence intervals computed based on robust standard errors.

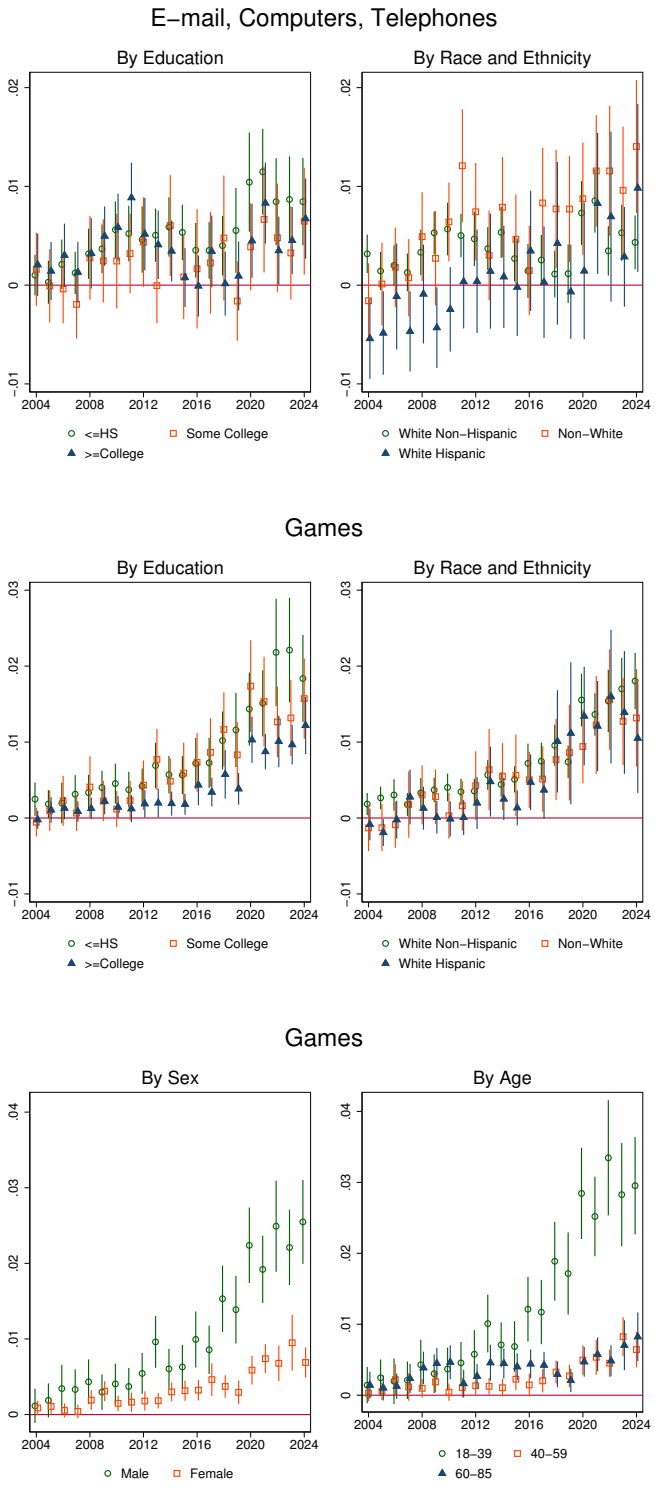

Figure 5: Trends in Time Spent Alone and on Digital Activities

Notes: See the notes for Figure 1 for the list of controls. The figure includes 1.96 standard-error confidence intervals computed based on robust standard errors.