Internet Appendix to:

"Sleep Disruptions and Information Processing in Financial Markets"

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Internet Appendix

This Internet Appendix describes the distribution of forecasts by professional and non-professional forecasters throughout the calendar week and presents additional regression analyses to support the main results in the paper.

Figure IA1 describes the distribution of *Estimize* EPS forecasts according to the calendar weekday during which they are issued and according to whether they are issued by professional or non-professional forecasters. We present this distribution for the full sample in Panel A and for our event window sample in Panel B, which includes forecasts issued during the period beginning 30 calendar days before spring DST Sundays and ending 30 calendar days after our two-day post-spring DST treatment window. Panels A and B both show that forecast issuance is lowest on Saturdays, with the next two lowest forecast issuance days being Sunday and Friday. Consistent with professional forecasters having more steady job demands throughout the work week, forecasts by professionals make up a higher fraction of total forecast production on Wednesday through Friday. Additionally, forecasts by professionals make up a particularly low fraction of forecasts on weekends. As noted in the paper, we exclude weekend forecasts from our analysis. Importantly, the distribution of forecasts across weekdays and professional background are similar between the full sample and the event window sample.

Table IA1 reports the distribution of professions among the non-professional (i.e., novice) forecasters in our *Estimize* sample. As described in the paper, about a quarter of non-professional forecasts are issued by students or individuals working in academia, and the remaining three-quarters are issued by non-analyst employees of financial and non-financial companies.

In Table IA2, we re-estimate our primary analyses in Tables 3 and 5 in the paper — which examine the differential effect of spring DST on forecasters with varying levels of expertise using the *Estimize* and *I/B/E/S* samples, respectively — after including forecasts issued on the weekend. The results using the *Estimize* sample are reported in Panel A and the results using the *I/B/E/S* sample are reported in Panel B. Across both panels, we continue to find that the relative forecast accuracy of forecasters with less expertise declines following spring DST compared with the forecast accuracy of forecasters with more expertise when including in our regressions forecasts issued on the weekend. These results suggest it is unlikely our exclusion of weekend forecasts drives our results.

In Table IA3, we examine the average relative forecast accuracy of professional and non-professional forecasters in *Estimize* throughout our 2013–2019 sample period. Because non-professional forecasters tend to issue their forecasts later in the forecast period than professional forecasters and can thus piggyback on the work of their peers, we control for the horizon of each forecast and the number and dispersion of prior forecasts issued for the same firm-earnings period by peer analysts. We find that non-professional forecasters are on average significantly less accurate than professional forecasters, which supports the intuition that professional forecasters are on average better at their job than novices.

In Table IA4, we re-estimate our primary *Estimize*-sample analyses in Table 3 in the paper after excluding forecaster fixed effects from the regressions and including the main effect for the variable *Non-Professional*. Across the four columns, we continue to find that the relative forecast accuracy of novice forecasters declines following spring DST compared with the forecast accuracy of professional forecasters. These results indicate that our exclusion of the *Non-Professional* main effect due to our inclusion of forecaster fixed effects is not the reason we find significant negative coefficients on the *Daylight Saving time*Non-Professional* interaction term.

In Table IA5, we reproduce our regression results from Table 3 in the paper in Panel A and Table 5 in the paper in Panel B. Instead of suppressing the control variables, we report here the coefficient estimates for the full set of control variables.

In Table IA6, we estimate a placebo version of our regression analysis reported in Table 3 in the paper. That is, to address the concern that the relation between spring DST and the relative forecast accuracy of novice forecasters might be due to a spurious correlation between the relative performance of novice forecasters and beginning-of-the week days in March, we re-estimate our main regressions using a placebo-DST Sunday one week before the actual spring DST Sunday. *Placebo Daylight Saving Time* is an indicator variable equal to one when the forecast is issued during the two days beginning on the Monday before spring DST Sunday. The sample period includes forecasts issued during the period beginning 30 calendar days before the placebo DST Sunday and ending 30 calendar days after the Tuesday following the placebo DST Sunday. We predict that the coefficient on *Placebo Daylight Saving time*Non-Professional* is indistinguishable from zero. The results in Table IA6 support this prediction.

In Table IA7, we examine the effect of fall DST clock shifts, when most Americans gain an extra hour in their day, on the relative forecast accuracy of novice forecasters. We estimate the same regressions as in Table 3 in the paper, but use a sample period covering roughly the two months surrounding fall DST instead of spring DST and replace the indicator for spring DST treatment days with an indicator for fall DST treatment days. Specifically, *Fall Daylight Saving Time* is an indicator variable equal to one when the forecast is issued during the two days beginning on the Monday following fall DST Sunday. The sample period includes forecasts issued during the period beginning 30 calendar days before fall DST Sunday and ending 30 calendar days after the Tuesday following fall DST Sunday. Previous research generally finds little effect of fall DST on individuals' sleep and performance. Likewise, we predict no change in the relative forecast accuracy of novice forecasters compared with non-professional forecasters following fall DST clock shifts, i.e., we expect the coefficient on *Fall Daylight Saving Time* x *Non-Professional* to be equal to zero. The evidence in Table IA7 supports this prediction.

In Table IA8, we examine the effect of the post-New Year's Day return-to-work period and the relative forecast accuracy of professional and non-professional forecasters. We estimate the same regressions as in Table 3 in the paper, but replace the indicator variable for the days immediately following spring DST with an indicator for the days immediately following New Year's Day. Specifically, *Post-New Year's Day* is an indicator variable equal to one when the forecast is issued during the two days beginning on the day following New Year's Day. The sample period includes forecasts issued during the period beginning 30 calendar days before New Year's Day and ending 30 calendar days after the second day following New Year's Day. Jannati and Khalaf (2022) provide evidence that analysts perform better during the days following major holidays, when it is more likely that they are well rested. One period that the authors use in their analysis is the days following New Year's Day. We argue that the prediction of how professional and non-professional forecasters perform during the period immediately following the New Year's Day holiday is ambiguous because there are likely competing post-holiday blues and restfulness effects, in addition to multifarious ways in which breaks from work can interact with an individual's expertise. Our results in Table IA8 show no evidence of a change in the relative forecast accuracy of non-professional forecasters compared with professional forecasters during the period immediately following the New Year's holiday break.

In Table IA9, we examine whether our results showing a relative decline in forecast accuracy for low-expertise analysts following spring DST using our *I/B/E/S* sample presented in Table 5 are robust to restricting the sample to the same firm-earnings periods forecasted in the *Estimize* sample. To examine this question, we re-estimate Table IA9 after excluding from the *I/B/E/S* regression sample all forecasts for which we are unable to match the earnings announcement to an earnings announcement forecasted in the *Estimize* sample. The results in Table IA9 show that we continue to find a significant relative reduction in forecast accuracy for low-expertise analysts following spring DST.

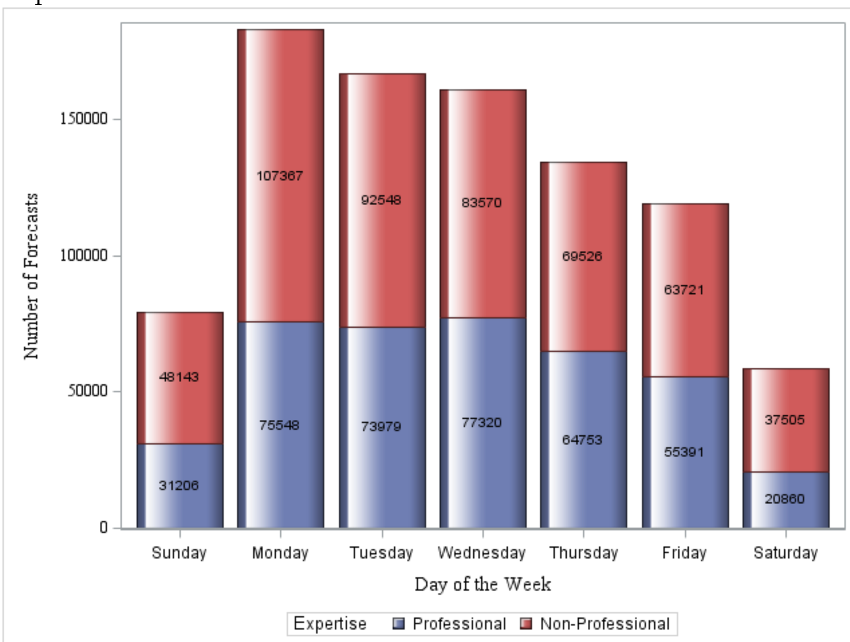
In Table IA10, we examine the cross-sectional influence of forecaster experience on the effect spring DST has on forecaster accuracy. In Panel A, we examine the unconditional effect of forecaster experience. *Low Expertise* is an indicator variable equal to one if the number of months the forecaster has been submitting forecasts to *Estimize* is in the bottom quartile of the annual distribution. One important caveat to this analysis is that *Estimize* is only available beginning in 2011, so we are unable to observe the true distribution of forecaster experience. In Columns (1) and (2), we find no evidence that spring DST disproportionately reduces the forecast accuracy of forecasters with low experience. In Columns (3) and (4), however, we find marginally significant evidence that forecasters with low experience exhibit significantly lower accuracy following spring DST. In Panel B of Table IA10, we examine the effect of forecaster experience, conditional on forecaster professional status. To do so, we re-estimate Table 3 in the paper, but additionally interact *Daylight Saving Time*Non-Professional* with the *Low Expertise* indicator variable from Panel A of Table IA10. We predict that the triple interaction of *Daylight Saving Time*Non-Professional*Low Expertise* is negative, indicating that the more pronounced negative effect of spring DST on novice forecasters compared with professional forecasters is concentrated among novice forecasters with low experience. The results in Table IA10 support this prediction.

In Table IA11, we examine the effect of spring DST on the relative forecast accuracy of professional and non-professional forecasters, conditional on the novice forecasters' industries of employment. More specifically, we examine the predictions that, because working in the finance industry or forecasting companies that operate in the same industry as the forecaster may capture additional aspects of forecasters' expertise that alleviate the effects of sleep disruptions, forecasters with these traits may be less affected by spring DST. The results in Panel A suggest that working in the same industry as the forecasted firms does not affect the relative impact of spring DST on novice forecasters. However, the results in Panel B show that the relative impact of spring DST on novice forecasters is concentrated among novices that work outside the finance industry. These results support the idea that domain-specific expertise — in this case, financial forecasting expertise — moderates the negative effect of sleep disruptions.

Because (i) spring DST occurs during essentially the same time each year, (ii) that period tends to have worse weather than an average day throughout the year, and (iii) prior research finds that poor weather affects analysts' forecast accuracy, one concern might be that our main results reported in Tables 3 and 5 in the paper are affected by local weather patterns. In Table IA12, we address this concern by collecting the location of analysts in our *I/B/E/S* sample, collecting daily weather information for the cities where the analysts work, and controlling for analysts' local daily average temperature and cloud cover (along with interactions of these variables with our *Low Expertise* indicator variable) in the regression specifications we use in Table 5. The results in Table IA12 show that we continue to find a significant relative decline in forecast accuracy for less experienced analysts following spring DST when we control for these measures of local weather. This evidence suggests that it is unlikely our results are driven by uniquely unpleasant weather affecting analysts during our post-spring DST treatment period.

Figure IA1: Split of Forecasts Between Professional and Non-Professional Forecasters
This figure plots the percentage of observations for each weekday in our full sample and in our event window. *Professional* indicates forecasters in *Estimize* that listed "Financial Professional" in their bio; *Non-Professional* indicates all other forecasters with non-missing bio information. The sample includes forecasts between 2013 and 2019 that (a) are not flagged by *Estimize* as unreliable, (b) are issued for earnings periods that receive at least twenty forecasts, (c) are issued no later than the earnings announcement date, and (d) have horizons less than 200 days.

Panel A: Full Sample



Panel B: Event Window

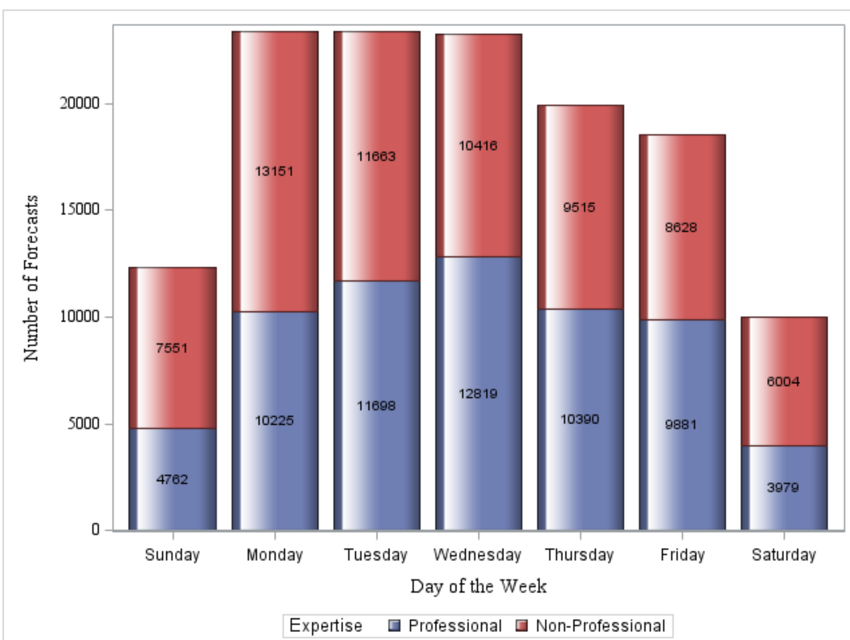


Table IA1: Distribution of Non-Professional Forecaster Professional Backgrounds

This table reports the unique professional backgrounds for all forecasters in the full *Estimize* sample (i.e., the first four columns of Panel A of Table 1), conditional on the forecaster being classified as "Non-Professional" in *Estimize*. Column 3 reports the percentage of the forecast observations that are associated with each professional background group.

Professional Background	Observations	Percent
Academia	31,337	7.01
Consumer Discretionary	19,747	4.42
Consumer Staples	10,751	2.41
Energy	7,966	1.78
Financials	80,648	18.05
Health Care	16,466	3.68
Industrials	34,287	7.67
Information Technology	123,324	27.59
Materials	13,657	3.06
Other	24,445	5.41
Student	75,407	16.93
Telecommunication Services	6,096	1.36
Utilities	2,788	0.62
Total	446,919	100.00

Table IA2: Cross-sectional Effect of DST – With Weekend Forecasts

This table presents results from OLS regressions estimating the relation between spring DST clock shifts and the relative forecast accuracy of professional and non-professional forecasters. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the two-day period beginning on the Monday following spring DST Sunday. *Non-Professional* is an indicator variable equal to one when the forecaster's professional background in *Estimize* is listed as "Non Professional." *Low Expertise* is an indicator variable equal to one when the analyst is in the bottom quartile of the annual distribution of experience. Although suppressed to conserve space, we include in Columns (2) and (4) of Panel A, we include the same controls as Columns (2) and (4) of Table 3 in the paper, and in Columns (2) and (4) of Panel B, we include the same controls as Columns (2) and (4) of Table 5 in the paper. The sample of forecasts in both panels is restricted to forecasts between 2013 and 2019 issued during the two-day DST treatment window or the 30 calendar days on each side of the treatment window. The sample in Panel A is further restricted to forecasts (i) not flagged by *Estimize* as unreliable, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days; the sample in Panel B is further restricted to forecasts (i) issued for earnings periods that receive at least twenty forecasts, (ii) issued no later than the earnings announcement date, and (iii) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Estimize

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Non-Professional	−0.060**	−0.053**	−0.013**	−0.011**
	(−2.40)	(−2.01)	(−2.15)	(−2.04)
Daylight Saving Time	0.040*	0.032	0.006*	0.005
	(1.86)	(1.38)	(1.79)	(1.52)
Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.916	0.917	0.886	0.891
Observations	77,221	68,593	77,846	69,083

Panel B: I/B/E/S

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Low Expertise	−0.230**	−0.243**	−0.012**	−0.013**
	(−2.19)	(−2.27)	(−1.97)	(−2.20)
Daylight Saving Time	−0.003	−0.002	0.002	0.002
	(−0.04)	(−0.03)	(0.62)	(0.59)
Low Expertise	0.043	−0.530	−0.005**	−0.011
	(0.69)	(−1.15)	(−2.17)	(−0.56)
Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.886	0.886	0.881	0.878
Observations	260,185	258,053	267,491	260,828

Table IA3: Forecast Accuracy of Professionals vs. Non-Professionals

This table presents results from OLS regressions examining the relative EPS forecast accuracy of professional and non-professional forecasters, as classified by *Estimize*. The dependent variable in Column (1), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1*|Forecasted\ EPS - Actual\ EPS|*100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Column (2), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Non-Professional* is an indicator variable equal to one when the analyst's professional background reported in *Estimize* is "Non Professional." The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 that (i) are not flagged by *Estimize* as unreliable, (ii) are issued for earnings periods that receive at least twenty forecasts, (iii) are issued no later than the earnings announcement date, and (iv) have horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

	(1) Price-Scaled Accuracy	(2) Unscaled Accuracy
Non-Professional	−0.009**	−0.194*
	(−2.47)	(−1.73)
Ln(Forecast Horizon)	−0.010**	−0.500***
	(−2.48)	(−3.39)
Ln(Number of Prior Estimates)	0.049***	2.549***
	(3.02)	(4.85)
Ln(Dispersion of Prior Estimates)	1.429***	92.130***
	(3.58)	(4.56)
Firm-Forecast Period FE	Yes	Yes
Adj. R-squared	0.873	0.840
Observations	443,299	443,299

Table IA4: Effect of DST Conditional on Expertise (Estimize) – No Analyst FE

This table presents results from OLS regressions estimating the relation between spring DST clock shifts and the relative forecast accuracy of professional and non-professional forecasters. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst *i*'s absolute forecast error, computed as $-1*|Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst *i*'s unscaled absolute forecast error. *Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the two-day period beginning on the Monday following spring DST Sunday. *Non-Professional* is an indicator variable equal to one when the forecaster's professional background in *Estimize* is listed as "Non Professional." The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 issued during the two-day DST treatment window or the 30 calendar days on each side of the treatment window. The sample is further restricted to forecasts (i) not flagged by *Estimize* as unreliable, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Non-Professional	−0.073**	−0.073**	−0.024**	−0.021**
	(−2.40)	(−2.25)	(−2.09)	(−2.16)
Daylight Saving Time	0.062**	0.056*	0.007	0.007
	(2.03)	(1.89)	(1.52)	(1.48)
Non-Professional	−0.020***	−0.053	−0.005***	−0.007
	(−3.03)	(−1.62)	(−3.18)	(−0.89)
Ln(Forecast Horizon)		0.005		0.004
		(0.63)		(1.50)
Ln(Number of Prior Estimates)		0.071***		0.033***
		(3.14)		(3.64)
Ln(Dispersion of Prior Estimates)		0.037		0.017
		(1.01)		(0.98)
Ln(Number of Firms)		0.004		−0.000
		(1.50)		(−0.67)
Ln(Firm-Specific Experience)		−0.000		0.002**
		(−0.11)		(2.49)
Past Forecast Accuracy		0.032		0.009
		(0.74)		(1.01)
Ln(Forecast Horizon) x Non-Professional		−0.004		−0.000
		(−1.19)		(−0.28)
Ln(Number of Prior Estimates) x Non-Professional		0.005		0.001
		(1.13)		(0.63)
Ln(Dispersion of Prior Estimates) x Non-Professional		−0.004		−0.001
		(−0.59)		(−0.39)
Ln(Number of Firms) x Non-Professional		0.007		0.002**
		(1.34)		(2.02)
Ln(Firm-Specific Experience) x Non-Professional		0.002		−0.000
		(0.46)		(−0.01)
Past Forecast Accuracy x Non-Professional		0.027		0.042**
		(0.50)		(2.04)
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	No	No	No	No
Adj. R-squared	0.900	0.909	0.867	0.879
Observations	68,594	56,488	69,159	56,885

Table IA5: Effect of DST Conditional on Expertise – Full Set of Controls

This table presents results from OLS regressions estimating the relation between spring DST clock shifts and the relative forecast accuracy of professional and non-professional forecasters. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the two-day period beginning on the Monday following spring DST Sunday. *Non-Professional* is an indicator variable equal to one when the forecaster's professional background in *Estimize* is listed as "Non Professional." The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 issued during the two-day DST treatment window or the 30 calendar days on each side of the treatment window. The sample in Panel A is further restricted to forecasts (i) not flagged by *Estimize* as unreliable, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days; the sample in Panel B is further restricted to forecasts (i) issued for earnings periods that receive at least twenty forecasts, (ii) issued no later than the earnings announcement date, and (iii) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Estimize

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Non-Professional	−0.075**	−0.075**	−0.020**	−0.018**
	(−2.24)	(−2.18)	(−2.37)	(−2.32)
Daylight Saving Time	0.045	0.042	0.007	0.005
	(1.52)	(1.37)	(1.58)	(1.20)
Ln(Forecast Horizon)		0.003		0.004
		(0.36)		(1.49)
Ln(Number of Prior Estimates)		0.070***		0.035***
		(3.06)		(4.09)
Ln(Dispersion of Prior Estimates)		0.038		0.019
		(1.01)		(1.04)
Ln(Number of Firms)		−0.002		−0.004
		(−0.18)		(−0.99)
Ln(Firm-Specific Experience)		−0.004		−0.001
		(−1.09)		(−1.08)
Past Forecast Accuracy		0.009		0.001
		(0.22)		(0.12)
Ln(Forecast Horizon) x Non-Professional		−0.004		−0.001
		(−1.03)		(−0.45)
Ln(Number of Prior Estimates) x Non-Professional		0.006		0.001
		(1.04)		(0.73)
Ln(Dispersion of Prior Estimates) x Non-Professional		−0.005		−0.001
		(−0.71)		(−0.47)
Ln(Number of Firms) x Non-Professional		−0.002		0.003
		(−0.12)		(0.67)
Ln(Firm-Specific Experience) x Non-Professional		0.003		0.002
		(0.77)		(1.48)
Past Forecast Accuracy x Non-Professional		0.023		0.016
		(0.43)		(1.06)
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.916	0.915	0.885	0.890
Observations	63,082	55,925	63,602	56,330

Panel B: I/B/E/S

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Low Expertise	−0.219**	−0.230**	−0.013*	−0.015*
	(−1.98)	(−2.05)	(−1.66)	(−1.90)
Daylight Saving Time	−0.023	−0.024	0.004	0.004
	(−0.31)	(−0.31)	(0.79)	(0.80)
Low Expertise	0.051	−0.549	−0.007*	−0.044
	(0.79)	(−1.14)	(−1.68)	(−1.25)
Ln(Forecast Horizon)		−0.016		−0.019***
		(−0.40)		(−5.60)
Ln(Number of Prior Estimates)		0.132		0.051***
		(1.08)		(4.27)
Ln(Dispersion of Prior Estimates)		5.310***		0.858***
		(3.50)		(3.57)
Ln(Number of Firms)		−0.024		−0.007
		(−0.38)		(−1.44)
Ln(Firm-Specific Experience)		0.001		0.001*
		(0.12)		(1.72)
Past Forecast Accuracy		−0.004		−0.000*
		(−1.11)		(−1.79)
Ln(Forecast Horizon) x Low Experise		−0.012		0.002
		(−0.45)		(0.75)
Ln(Number of Prior Estimates) x Low Expertise		0.046		0.000
		(1.03)		(0.14)
Ln(Dispersion of Prior Estimates) x Low Expertise		0.071		−0.000
		(0.34)		(−0.01)
Ln(Number of Firms) x Low Expertise		0.158		0.010
		(1.19)		(1.10)
Ln(Firm-Specific Experience) x Low Expertise		−0.001		0.000
		(−0.04)		(0.08)
Past Forecast Accuracy x Low Expertise		0.010		0.001
		(0.90)		(0.90)
Interaction Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.886	0.886	0.897	0.897
Observations	253,995	251,905	260,622	254,603

Table IA6: Placebo Tests – One Week Before Spring DST

This table presents results from OLS regressions estimating the relation between placebo periods of sleep disruptions and the relative forecast accuracy of professional and non-professional forecasters. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Placebo Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the period beginning on the Monday before the Sunday of spring DST and ending the Tuesday before the Sunday of spring DST. *Non-Professional* is an indicator variable equal to one when the forecaster's professional background reported in *Estimize* is "Non Professional." Although suppressed to conserve space, each control variable reported is also interacted with *Non-Professional*. The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 issued during the two-day placebo DST treatment window or the 30 calendar days on each side of the placebo treatment window. The sample is further restricted to forecasts (i) not flagged by *Estimize* as unreliable, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Placebo Daylight Saving Time x Non-Professional	−0.013	−0.011	0.007	0.007
	(−0.67)	(−0.55)	(1.41)	(1.44)
Placebo Daylight Saving Time	0.006	0.006	−0.006*	−0.007*
	(0.39)	(0.40)	(−1.69)	(−1.71)
Interaction Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.918	0.921	0.892	0.896
Observations	65,879	58,543	66,340	58,912

Table IA7: Fall End of Daylight Saving Time

This table presents results from OLS regressions estimating the relation between fall DST clock shifts and the relative forecast accuracy of professional and non-professional forecasters. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 180 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Fall Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the period beginning on the Monday following the fall end of DST and ending the Tuesday after the fall end of DST. *Non-Professional* is an indicator variable equal to one when the forecaster's professional background reported in *Estimize* is "Non Professional." Although suppressed to conserve space, each control variable reported is also interacted with *Non-Professional*. The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 issued during the two-day fall DST treatment window or the 30 calendar days on each side of this treatment window. The sample is further restricted to forecasts (i) not flagged by *Estimize* as unreliable, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Fall Daylight Saving Time x Non-Professional	0.017	0.022	−0.001	−0.000
	(1.30)	(1.64)	(−0.25)	(−0.06)
Fall Daylight Saving Time	−0.007	−0.014	0.002	0.000
	(−0.63)	(−1.23)	(0.97)	(0.16)
Interaction Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.902	0.904	0.887	0.891
Observations	114,399	101,082	115,419	101,898

Table IA8: After New Year's Day

This table presents results from OLS regressions estimating the relation between New Year's Day holiday breaks and the relative forecast accuracy of professional and non-professional forecasters. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 180 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Post-New Year's Day* is an indicator variable equal to one for forecasts issued during the period beginning on the first calendar day after New Year's Day and ending the second calendar day after New Year's Day. *Non-Professional* is an indicator variable equal to one when the forecaster's professional background reported in *Estimize* is "Non Professional." Although suppressed to conserve space, each control variable reported is also interacted with *Non-Professional*. The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 issued during the two-day fall DST treatment window or the 30 calendar days on each side of this treatment window. The sample is further restricted to forecasts (i) not flagged by *Estimize* as unreliable, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Post-New Year's Day x Non-Professional	0.001	−0.002	0.001	0.002
	(0.11)	(−0.14)	(0.10)	(0.30)
Post-New Year's Day	−0.009	0.012	−0.013*	−0.007
	(−0.74)	(1.05)	(−1.87)	(−1.00)
Interaction Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.920	0.920	0.888	0.891
Observations	66,086	58,441	66,520	58,798

Table IA9: *I/B/E/S*-sample Analysis with *Estimize*-sample Subset

This table presents results from OLS regressions estimating the relation between spring DST clock shifts and the relative forecast accuracy of high- and low-expertise professional sell-side analysts in Refinitiv's *I/B/E/S* database. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the two-day period beginning on the Monday following spring DST Sunday. *Low Experience* is an indicator variable equal to one when the analyst is in the bottom quartile of the annual distribution of experience. Although suppressed to conserve space, each control variable reported is also interacted with *Low Experience*. The sample of forecasts is restricted to forecasts between 2013 and 2019 issued during the two-day DST treatment window or the 30 calendar days on each side of the treatment window. The sample is further limited to forecasts (i) issued for the same firm-earnings periods included in our *Estimize* sample used in Tables 2 and 3, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Low Experience	−0.278**	−0.303**	−0.014**	−0.016***
	(−2.03)	(−2.15)	(−2.36)	(−2.64)
Daylight Saving Time	−0.001	0.007	0.001	0.001
	(−0.01)	(0.10)	(0.20)	(0.37)
Low Experience	0.098	−0.483	0.000	−0.026
	(1.46)	(−1.00)	(0.06)	(−1.11)
Interaction Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.885	0.885	0.871	0.873
Observations	208,886	207,142	209,371	207,585

Table IA10: Forecast Accuracy – Cross-sectional Effect of Experience (Estimize)

This table presents results from OLS regressions estimating the relation between spring DST clock shifts and the relative forecast accuracy of professional and non-professional forecasters with differing levels of forecasting experience. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the two-day period beginning on the Monday following spring DST Sunday. *Low Expertise* is an indicator variable equal to one when the analyst is in the bottom quartile of the annual distribution of the amount of time they have been submitting forecasts to *Estimize*. *Non-Professional* is an indicator variable equal to one when the forecaster's professional background in *Estimize* is listed as "Non Professional." Although suppressed to conserve space, each control variable reported in Panel A is also interacted with *Low Expertise* and each control variable in Panel B is also interacted with *Non-Professional*. The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 issued during the two-day DST treatment window or the 30 calendar days on each side of the treatment window. The sample is further restricted to forecasts (i) not flagged by *Estimize* as unreliable, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Unconditional Experience

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Low Expertise	−0.034	−0.041	−0.012*	−0.010*
	(−0.95)	(−1.06)	(−1.67)	(−1.83)
Daylight Saving Time	0.023	0.030	0.001	0.002
	(0.80)	(1.02)	(0.45)	(0.82)
Low Expertise	0.004	0.004	−0.006**	0.013
	(0.28)	(0.06)	(−2.49)	(1.37)
Interaction Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.924	0.923	0.887	0.891
Observations	72,898	65,041	73,474	65,506

Panel B: Conditional Experience

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Non-Professional x Low Expertise	−0.244*	−0.264**	−0.040**	−0.041***
	(−1.93)	(−2.01)	(−2.48)	(−2.58)
Daylight Saving Time x Non-Professional	0.003	0.009	−0.001	0.001
	(0.06)	(0.16)	(−0.13)	(0.32)
Daylight Saving Time x Low Expertise	0.133	0.147	0.012*	0.010
	(1.37)	(1.49)	(1.70)	(1.47)
Daylight Saving Time	0.021	0.018	0.002	0.001
	(0.37)	(0.32)	(0.58)	(0.30)
Low Expertise	0.023	0.035	−0.006	−0.002
	(0.81)	(1.07)	(−1.62)	(−0.71)
Interaction Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.921	0.917	0.885	0.890
Observations	63,082	55,925	63,602	56,330

Table IA11: Forecast Accuracy – Different Types of Novices (Estimize)

This table presents results from OLS regressions estimating the relation between spring DST clock shifts and the relative forecast accuracy of professional and non-professional forecasters, conditional on the industry of employment of the non-professional forecasters. The dependent variable in Columns (1) and (3), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Columns (2) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the two-day period beginning on the Monday following spring DST Sunday. *Non-Professional Same Industry* is an indicator variable equal to one when the forecaster's professional background reported in *Estimize* is listed as "Non Professional" and the forecaster works in the same industry as the firm they are forecasting. *Non-Professional Finance* is an indicator variable equal to one when the forecaster's professional background reported in *Estimize* is listed as "Non Professional" and the forecaster works in capital markets finance. *Non-Professional Different Industry* is an indicator variable equal to one when the forecaster's professional background reported in *Estimize* is listed as "Non Professional" and the forecaster works in a different industry than the firm they are forecasting. *Non-Professional Not Finance* is an indicator variable equal to one when the forecaster's professional background reported in *Estimize* is listed as "Non Professional" and the forecaster does not work in capital markets finance. The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 issued during the two-day DST treatment window or the 30 calendar days on each side of the treatment window. The sample is further restricted to forecasts (i) not flagged by *Estimize* as unreliable, (ii) issued for earnings periods that receive at least twenty forecasts, (iii) issued no later than the earnings announcement date, and (iv) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Novices with Same-Industry or Finance Background Advantages

	Same Industry		Finance Profession	
	(1) Price-Scaled Accuracy	(2) Unscaled Accuracy	(3) Price-Scaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time	−0.064	−0.016		
x Non-Professional Same Industry	(−1.56)	(−1.04)		
Daylight Saving Time			0.013	−0.006
x Non-Professional Finance			(0.49)	(−0.68)
Daylight Saving Time	0.009	−0.003	0.001	−0.005
	(0.55)	(−0.48)	(0.04)	(−0.72)
Same Industry	0.002	−0.004		
	(0.21)	(−1.40)		
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.915	0.885	0.915	0.885
Observations	63,082	63,602	63,082	63,602

Panel B: Novices with Different-Industry or Non-Finance Background Disadvantages

	Different Industry		Non-Finance Profession	
	(1) Price-Scaled Accuracy	(2) Unscaled Accuracy	(3) Price-Scaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time	−0.035	−0.012		
x Non-Professional Different Industry	(−1.11)	(−1.14)		
Daylight Saving Time			−0.068**	−0.019**
x Non-Professional Not Finance			(−2.21)	(−2.03)
Daylight Saving Time	0.018	0.001	0.038	0.005
	(0.71)	(0.13)	(1.52)	(1.10)
Different Industry	0.002	0.005*		
	(0.22)	(1.81)		
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.915	0.885	0.915	0.885
Observations	63,082	63,602	63,082	63,602

Table IA12: Controlling for Local Weather Conditions

This table presents results from OLS regressions estimating the relation between spring DST clock shifts and the relative forecast accuracy of high- and low-expertise professional sell-side analysts in Refinitiv's *I/B/E/S* database. The dependent variable in Columns (1) and (2), *Price-Scaled Accuracy*, is (the negative of) analyst i's absolute forecast error, computed as $-1 * |Forecasted\ EPS - Actual\ EPS| * 100$, scaled by the firm's share price 100 calendar days prior to the forecast. The dependent variable in Columns (3) and (4), *Unscaled Accuracy*, is (the negative of) analyst i's unscaled absolute forecast error. *Daylight Saving Time* is an indicator variable equal to one for forecasts issued during the two-day period beginning on the Monday following spring DST Sunday. *Low Expertise* is an indicator variable equal to one when the analyst is in the bottom quartile of the annual distribution of experience. Although suppressed to conserve space, each control variable reported is also interacted with *Low Expertise*. *Cloud Cover* is the average cloud cover during the day in which the forecast is issued, for the city where the analyst's brokerage is located. *Daily Average Temperature* is the average outside temperature during the day in which the forecast is issued, for the city where the analyst's brokerage is located. The sample of forecasts in each regression is restricted to forecasts between 2013 and 2019 issued during the two-day DST treatment window or the 30 calendar days on each side of the treatment window. The sample is further restricted to forecasts (i) issued for earnings periods that receive at least twenty forecasts, (ii) issued no later than the earnings announcement date, and (iii) with horizons less than 200 days. Variables are defined in Appendix A. Standard errors are two-way clustered at the analyst and firm levels. *, **, and *** reflect significance at the 10%, 5%, and 1% levels, respectively.

	(1) Price-Scaled Accuracy	(2) Price-Scaled Accuracy	(3) Unscaled Accuracy	(4) Unscaled Accuracy
Daylight Saving Time x Low Expertise	−0.256**	−0.277**	−0.010*	−0.011*
	(−2.40)	(−2.52)	(−1.69)	(−1.91)
Daylight Saving Time	−0.005	0.002	0.000	0.001
	(−0.06)	(0.02)	(0.08)	(0.40)
Low Expertise	0.065	−0.828	−0.005**	−0.028
	(0.99)	(−1.60)	(−2.12)	(−1.27)
Cloud Cover	−0.000	−0.000	−0.000	−0.000
	(−1.13)	(−1.08)	(−1.35)	(−0.58)
Daily Average Temperature	−0.000	−0.001	0.000***	0.000
	(−0.24)	(−0.99)	(6.43)	(0.55)
Interaction Controls	No	Yes	No	Yes
Firm-Forecast Period FE	Yes	Yes	Yes	Yes
Day-of-the-week FE	Yes	Yes	Yes	Yes
Forecaster FE	Yes	Yes	Yes	Yes
Adj. R-squared	0.883	0.883	0.875	0.878
Observations	231,772	230,213	233,208	231,564