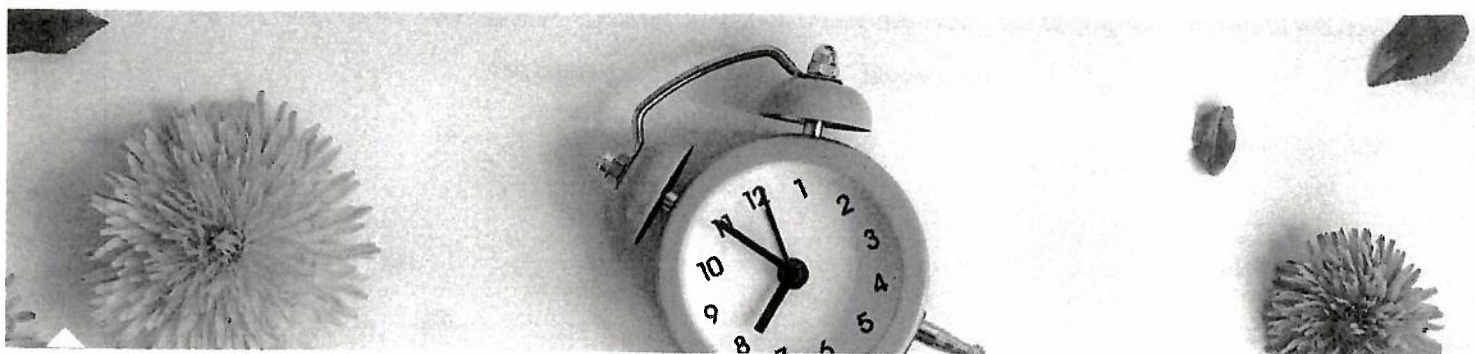


Resources and Statistics Relating to LB 283 and Daylight Saving Time

From the office of Tom Briese, LD 41

- 1 - "Daylight Saving Time: Americans want to stay permanently 'sprung forward' and not 'fall back'" - YouGov
- 2 - Graphs relating to the previous article
- 3 - "Daylight Saving: A Boost for Troubled Economy?" - NPR
- 4 - "The end of daylight saving time means a drop in consumer spending" - CNBC
- 5 - "Shedding Light of Daylight Saving Time" - a study by JPMorgan Chase & Co.
- 6 - "An Hour at What Cost? The Harmful Effects of Daylight Savings (sic)" - WebMD
- 7 - "The Number of Fatal Car Accidents Spikes After Daylight Saving Time" - Healthline.com
- 8 - "Daylight Saving Time Should Be Permanent. The Pandemic Shows Us Why" - by Orrin Hatch, Time Magazine

Please contact Sen. Briese or Edward Boone (eboone@leg.ne.gov) for links or digital copies of any or all distributed resources



Daylight Saving Time: Americans want to stay permanently 'sprung forward' and not 'fall back'

Kathy Frankovic

November 04, 2021, 5:00 PM CDT

Polled days before the annual ritual of ending Daylight Saving Time by changing their clocks, Americans say they would much rather have one time that lasts all year long, one that doesn't require changing all clocks twice a year. The latest *Economist/YouGov Poll* finds that nearly four times as many Americans would end the practice of setting clocks ahead in the spring and back again in the fall.

This preference is a rare one that transcends politics: Democrats and Republicans agree. Older and younger adults agree, too, but the margin in favor of ending clock changing is much smaller among Americans under the age of 30 — who have experienced the yearly ritual fewer times than their elders — than it is among Americans 65 and older, 77% of whom want to avoid changing time.

in

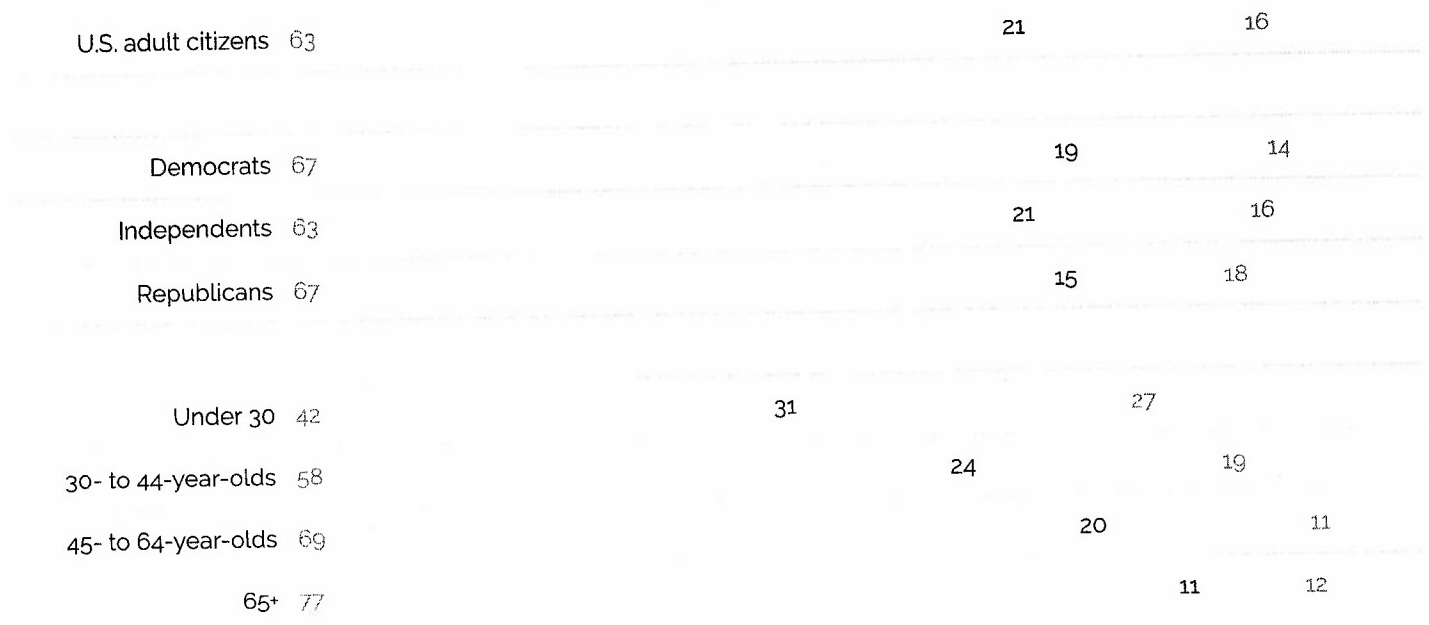
What do you think?

Get Started →



Would you like to see the changing of the clocks eliminated, so people no longer change their clocks twice per year? (%)

Yes, I would Not sure No, I would not



The Economist / YouGov | October 30 - November 2, 2021 | [Data](#)

While Americans would prefer one time for the whole year and not worry about keeping their clocks in order, if there is going to be only one time for the U.S, which one should it be?

Nearly twice as many Americans who prefer not changing their clocks would prefer that Daylight Saving time – not Standard Time – be the one that is kept.

Again, which time one picks isn't a matter of politics. Instead, it appears age matters more. Adults under the age of 30 are closely divided on whether they want sunlight later into evening (which happens with Daylight Saving Time) or in the morning. Older adults have a clear preference for Daylight Saving Time. So do people from every region.



What do you think?

Get Started →

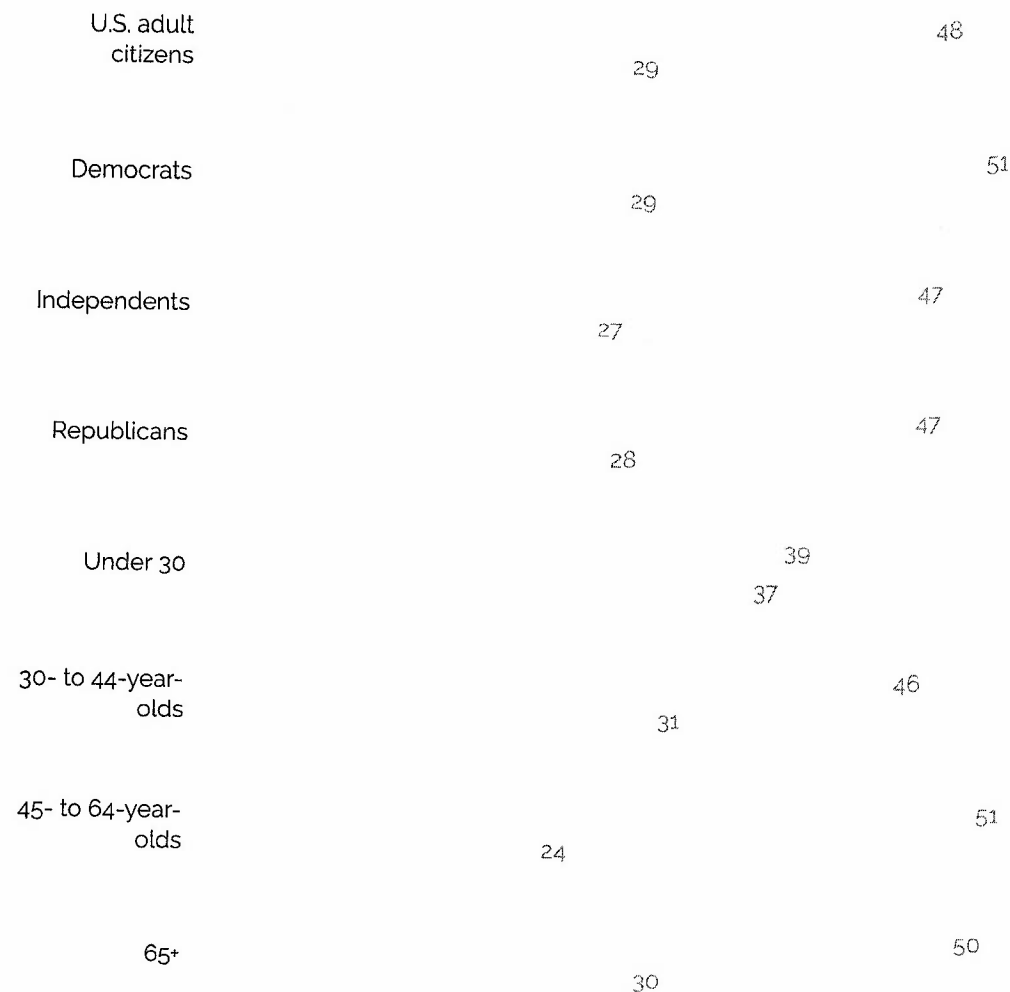


forward for a later sunset

You indicated that you would like to eliminate Daylight Saving Time. Which time would you like to make permanent? (% of those who want to eliminate Daylight Saving Time)

Permanent Daylight Saving Time (stay "sprung forward" an hour for later sunset)

Permanent Standard time (stay "fallen back" for earlier sunrise)



At least some of Americans' stated preference to eliminate changing times may stem from the inconvenience and abruptness of the transition between times, which they could feel more strongly when asked about it near clock-changing times. Many Americans say they dread the forthcoming transition from Daylight Saving Time. Asked about its end this Saturday, 34% of Americans say that they're not looking forward to it, 21% say they are looking forward to it, and 38% say they don't really care.

What do you think?

Get Started →



October 30 and November 2, 2021. This sample was weighted according to gender, age, race, and education based on the 2018 American Community Survey, conducted by the U.S. Census Bureau, as well as 2016 and 2020 Presidential votes (or non-votes). Respondents were selected from YouGov's opt-in panel to be representative of all U.S. citizens. The margin of error is approximately 3% for the overall sample.

Image: Getty

EXPLORE MORE DATA & ARTICLES



The Economist / YouGov polls



Time

What issues do you want President Biden to focus on?

POLITICS

When you're meeting a friend, do you typically arrive...

21 days ago



in

LIFESTYLE

Americans who plan to make New Year's

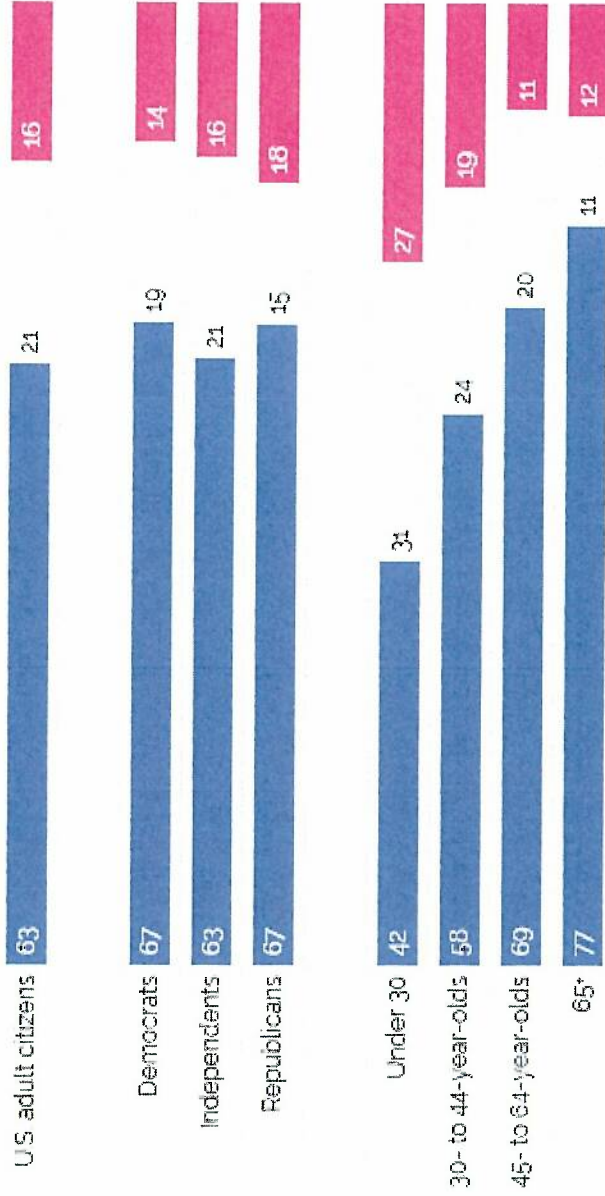
What do you think?

Get Started →

By 63% to 16%, Americans want to eliminate the changing of the clocks

Would you like to see the changing of the clocks eliminated, so people no longer change their clocks twice per year? (%)

■ Yes, I would ■ Not sure ■ No, I would not

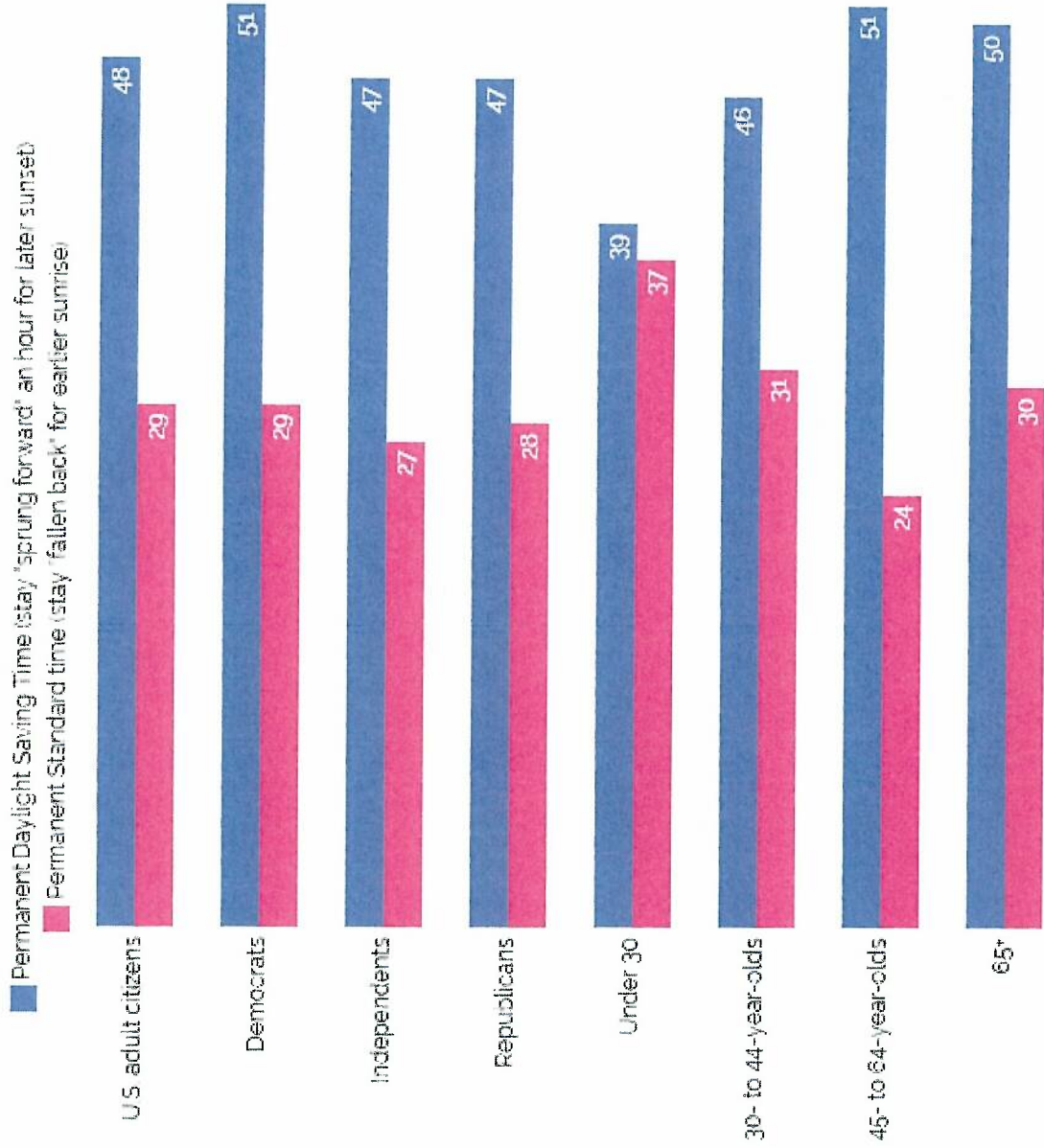


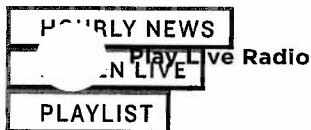
YouGov

The Economist / YouGov | October 30 - November 2, 2021 | Get the data

Americans want permanent Daylight Saving Time, which would mean staying 'sprung forward' for a later sunset

You indicated that you would like to eliminate Daylight Saving Time. Which time would you like to make permanent? (% of those who want to eliminate Daylight Saving Time)





DONATE

BUSINESS

Daylight Saving: A Boost For Troubled Economy?

March 7, 2009 · 9:03 PM ET

Heard on All Things Considered



YUKI NOGUCHI

3-Minute Listen

PLAYLIST Download
Transcript



Daylight saving time now lasts from the first weekend in March to Nov. 1.

Joe Raedle/Getty Images

It's debatable — and according to Michael Downing, highly unlikely — that anything is really saved with daylight saving time.

"It has never been shown to save any real energy, but it has been a fantastically effective retail spending plan," said Downing, who teaches English at Tufts University and is author of the book *Spring Forward: The Annual Madness of Daylight Saving Time*.

The Energy Act of 2005 increased the duration of daylight saving starting in 2007, and this year it now extends from early March until the first of November.

Originally, daylight saving was a concept that gained popularity among several countries — including the U.S. — during World War I. But the popular notion that it helps save energy by fitting more human activity in the daylight hours has never been borne out by most of the evidence, Downing said, although one Energy Department study showed electricity use declined 0.03 percent. In fact, the more comprehensive studies indicate that people drive more with more evening light and thus it actually boosts energy consumption, he said.

If there's no savings there, there's also no savings when it comes to retail: People tend to shop more when the daylight hours extend later.

Sponsor Message

The golf industry, for example, managed to double its revenue from equipment and greens fees to \$400 million in 1986, a year when daylight saving was extended by an extra month, Downing said. For unknown reasons, convenience stores also typically see a boost when the clocks move forward.

A spokesman for Kingsford Charcoal, the maker of black briquettes, said two years ago when Congress extended daylight saving, it saw another spike in sales, although he declined to quantify it. It's a big enough boost that — despite the wintry weather still affecting much of the country — the company is launching a new ad campaign this weekend to inform people "winter's over, it's time to come out and grill."

Not everyone is a big fan of daylight saving. Some parents complain it disrupts children's sleep cycles. Farmers, who have many pre-dawn tasks to do, complain it reduces the time they have to go to market.

But Joe Carmack, owner of outdoor store Garden District, said it draws customers into his Washington, D.C., store and begins the "greenification" of the city.

The stores see a boost in traffic starting with the daylight saving switch, so the stores extend their hours to 9 p.m. or 9:30 p.m. The change triggers people's urge to be outside, Carmack said. "People like to garden after work and it's a great way to just change gears," he said.

Despite the lack of savings and the complications of adjusting clocks and coordinating flight times with parts of the world that don't abide by daylight saving, Downing said, daylight saving probably survived and thrives because people love it. His explanation: "We read light as a reward and darkness as punishment, and so when we have an excess amount of light as we do in the long days of summer, we do seem to feel that the world is a more benign place."

Related NPR Stories

Study Tracks 'Daylight Saving' Energy Use March 7, 2008

The Story Of Daylight Saving Time March 6, 2009



The end of daylight saving time means a drop in consumer spending

Eric Chemi | @EricChemi

Published 2:51 PM ET Sat, 5 Nov 2016

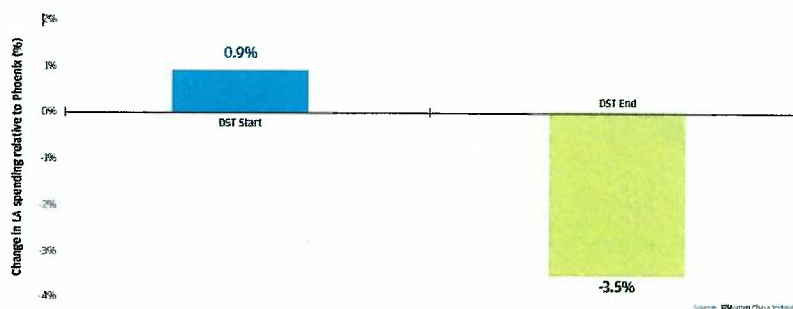
While the election and the economy have been the major focus of discussion this week, a seemingly small change this weekend could lead to a significant drop in consumer spending.

A recent study by the JPMorgan Chase Institute showed that when daylight saving time (DST) ends, there's a 3.5 percent drop in credit card spending in the following 30 days.

In particular, consumer spending on goods drops more than services, and weekday spending drops more than weekends.

JPMorgan has access to millions of credit card transactions on its network, and the anonymized data allows the company to see exactly how consumer behavior changes immediately as a result of the one-hour shift.

Figure 1: Daily card spending per capita drops 3.5 percent at the end of DST



When DST begins in the spring, there is a 0.9 percent increase in daily credit card spending per capita in Los Angeles. But the 3.5

FROM THE WEB

Sponsored Links by Taboola

Nebraska: Say Bye To Your Power Bill If You Own A Home In Lincoln

EnergyBillCruncher

The Boomer Asset Giving Gen Z a Run for Its Money

Masterworks

From Making Millions To Collecting Welfare: 24 NBA Stars Who Went Broke

moneywise.com

Why History Shows Selling Stocks Now Could be a Terrible Move

Investing Outlook

by Taboola



MARKETS



CNBC TV



WATCHLIST



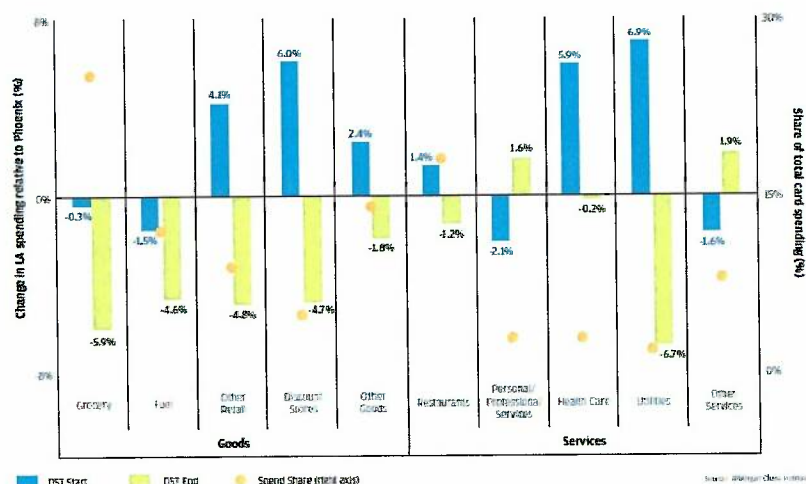
MENU



We all sleep an extra hour, making the mornings brighter and the evenings darker.

According to JPMorgan's data, grocery stores (down 6 percent per day per capita) suffered the most among consumer goods categories. Contrast that with health care, which saw almost no drop. That makes sense, because those types of decisions aren't going to change because of the time difference.

Figure 2: Card spending drops more for goods than services at the end of DST



global economy

Here are the top sacrifices made by 'super savers'

Insana: Russia's Ukraine invasion is a turning point for investors as the world changes

Russia restricts Instagram after its parent Meta allows violent threats against military for Ukrain...

Stocks making the biggest moves midday: Meta, Rivian, Oracle, DocuSign and more

Pfizer planning to submit data on 4th Covid shot soon, while working on vaccine for all variants

Promoted Links

You can really see the stark difference when comparing weekday spending versus weekend spending. All of a sudden, weeknights lose an hour of light, digging into the limited time people had in the first place to shop then anyway.



Then there are the fatalities

If that's not bad enough, data from New York City show that the end of DST has a direct effect on the deaths of pedestrians, who are being hit by automobiles that are now being driven more in the dark.

The New York Times recently reported on the issue, saying the city's Department of Transportation is concerned about added darkness increasing the danger to pedestrians during the evening commute. The city will spend \$1.5 million on a "dusk and darkness" advertising campaign. Last year, there were nine pedestrian fatalities in the first eight days after DST ended on November 1.

The city provides the full data on pedestrian deaths by the time of day and the week of year.

While a lot of people are concerned the election could hurt economic spending and endanger people in the streets, here's the thing: It's



MARKETS



CNBC TV



WATCHLIST



MENU

Shedding Light on Daylight Saving Time

JPMORGAN CHASE & CO.
INSTITUTE

Shedding Light on Daylight Saving Time

Diana Farrell
Vijay Narasiman
Marvin Ward Jr

Daylight Saving Time (DST) is the adjusted time schedule that is followed in most states during the warmer months of the year to increase the amount of natural sunlight during the typical waking hours of the day. It begins in the spring when clocks are set forward from standard time by one hour and ends in the fall when clocks are returned to standard time.¹ The policy affects over 300 million Americans. Notable exceptions include Arizona, Hawaii, American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands. Although DST was originally motivated by efforts to reduce energy costs, the economic impacts of DST have been difficult to evaluate.²

The energy saving rationale for DST has not been well supported by academic research.³ The benefits of reduced lighting costs are largely offset by increased air conditioning costs during the day and higher energy demands during the darker mornings of the DST period. There is a perception that DST increases spending among those consumers who make use of the extra daylight to frequent shops and restaurants, or spend money on outdoor recreation and other activities. The strongest advocates for the policy have been supporters of small businesses and retailers, like chambers of commerce and outdoor entertainment providers like the golf and barbecue industries.⁴

In advance of the return to Standard Time this November, the JPMorgan Chase Institute used its unique lens to measure the impacts of DST on consumer spending. Specifically, we sought to test whether or not DST provides the benefits that advocates advance in support of the policy. Using an anonymized sample of daily credit and debit card transactions, we compared consumer spending in Los Angeles, a city that observes DST, to that of Phoenix, a city that does not observe DST. We chose Los Angeles as our comparison city because of its relative proximity to Phoenix, relative stability of climate during the study window, and the robust volume of spending we could observe in both cities. The sample for this study draws from over 380 million transactions made by over 2.5 million anonymized customers.

Our unprecedented view of spending around the beginning and end of DST does not support consumer spending claims of DST advocates. Our analysis finds the policy is associated with a 0.9 percent increase in daily card spending per capita in Los Angeles at the beginning of DST and a reduction in daily card spending per capita of 3.5 percent at the end of DST. The increase in spending at the beginning of DST is determined by comparing daily card spending per capita in the 30 days before DST starts, to daily card spending per capita in the 30 days after DST starts. The decrease at the end captures a similar window to compare spending in the 30 days before and after the end of DST. Most of the impact stems from responses at the end of DST, when spending on goods drops more than spending on services, and spending during the work week drops more than weekend spending. The magnitude of the spending reductions outweighs increased spending at the beginning of DST.

Findings

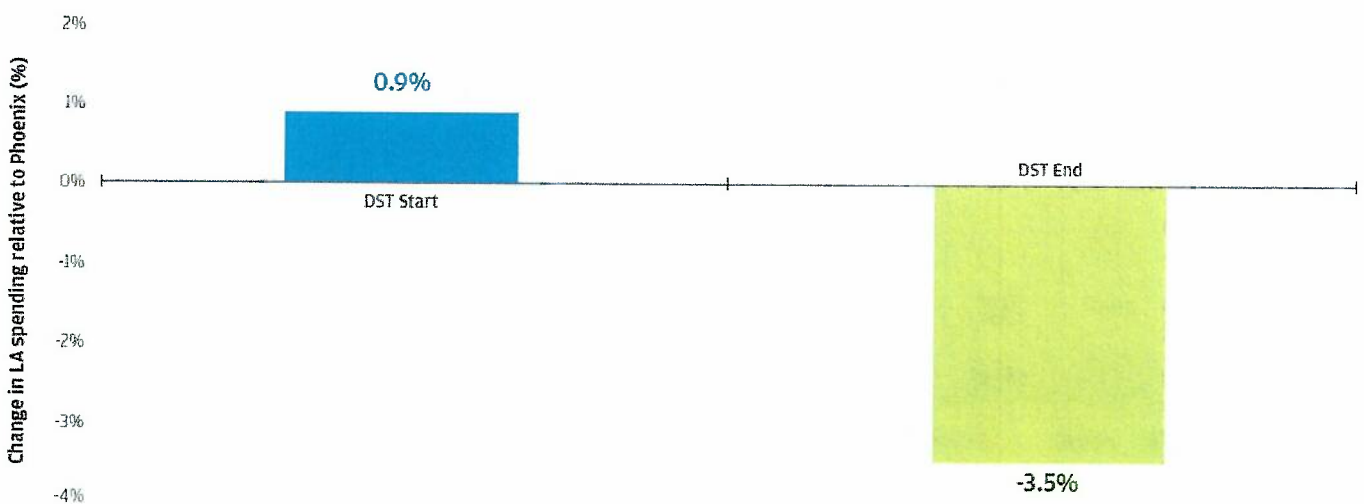
Finding One

The onset of Daylight Saving Time (DST) in Los Angeles increases daily card spending per capita by 0.9 percent, while the end of DST reduces daily card spending per capita by 3.5 percent.

DST begins in March and ends in November, which means there are two relevant events to capture when measuring the impact of the policy. In March, Los Angeles enters DST while Phoenix does not. Consequently, Los Angeles has an additional hour of post-work sunlight while Phoenix remains unchanged. If the extra hour induces additional spending, we would expect to see an increase in local commerce in Los Angeles relative to local commerce in Phoenix. In November, the opposite should happen. Los Angeles would lose an hour of post-work sunlight, and we would expect to see local commerce in Los Angeles decline relative to local commerce in Phoenix.⁵

Using daily transaction-level data in the two cities, we found that the onset of DST has a positive effect on local commerce.⁶ Los Angeles sees a 0.9 percent increase in daily card spending per capita in the 30 days after gaining an hour of post-work daylight. However, in the 30 days after DST ends, daily card spending per capita in Los Angeles declines 3.5 percent relative to spending in Phoenix. There are two channels by which such a decline could occur: consumers could either make fewer trips to merchants (reflected in fewer transactions) or spend less money per transaction. In our data, over two-thirds of the decline is due to a reduction in the number of transactions, which is consistent with the idea that daylight affects the decision to go to the store.

Figure 1: Daily card spending per capita drops 3.5 percent at the end of DST



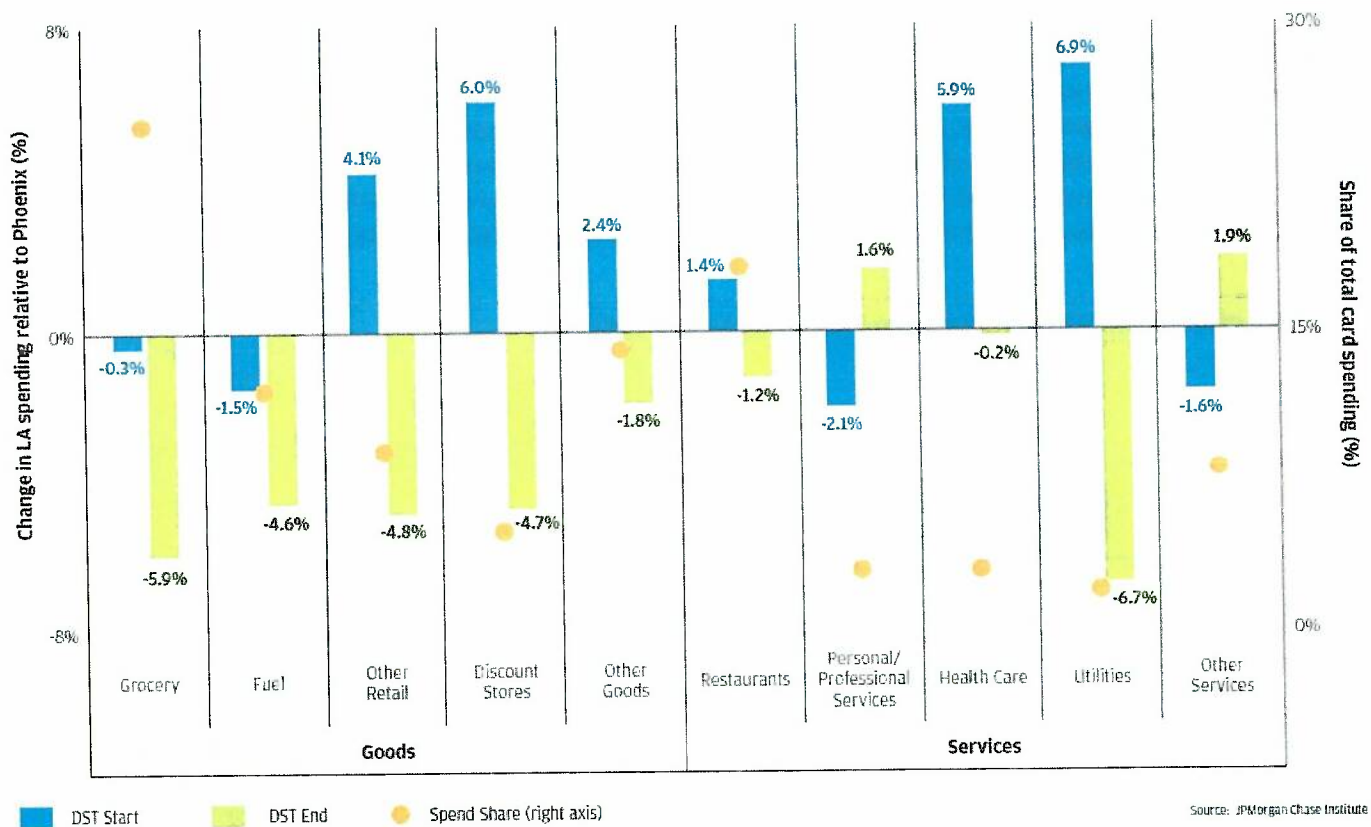
Source: JPMorgan Chase Institute

Finding Two

In Los Angeles, DST is more likely to be associated with changes in daily card spending per capita directed towards goods rather than services.

The end of DST affects different product types to different degrees. Grocery stores are most affected, losing almost 6 percent of daily retail per capita spend at the end of DST. Fuel, other retail, and discount stores each lose over 4.5 percent. By contrast, changes in restaurants, personal/professional services⁷, and health care spending are notably smaller in magnitude. Utilities are an outlier in the services space, but they represent just 2 percent of total spending.

Figure 2: Card spending drops more for goods than services at the end of DST



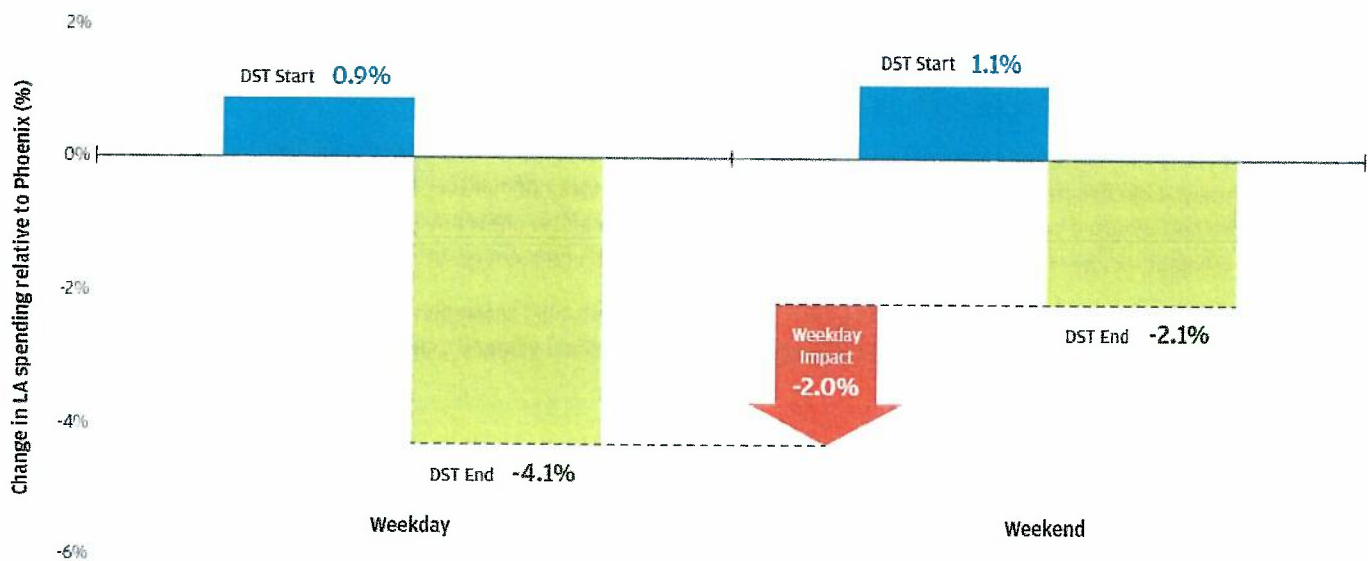
There are a number of reasons the services highlighted here might be less reliant on daylight than other categories of expenditure. Restaurants are often patronized at night and are often visited by multiple consumers who coordinate their visits. Personal/professional services and healthcare have little reason to respond to DST, and likely capture time-of-year effects (e.g. allergy season) more than discretionary choices related to taking advantage of sunlight. For this reason, we did not expect large changes in these categories. Utility spending, by contrast, might be responding to DST insofar as it alters the energy consumption choices. On the other hand, the most affected goods providers carry products that often require no coordination on the part of the consumer and are often impulse purchases.

Finding Three

Daily card spending per capita in Los Angeles drops significantly more during the work week in response to the end of DST.

There are large differences in spending changes across days of the week. Increases in card spending at the beginning of DST are virtually the same for weekdays and weekends in Los Angeles. However, spending during the work week declined significantly more than spending during the weekend at the end of DST. This finding is consistent with the idea that consumers with jobs may have limited time to shop during the work week. If daylight affects the decision to patronize a merchant, we would expect that losing an hour of daylight would have a larger effect when there are fewer hours available. Conversely, since most consumers do not work on the weekends, they have the freedom to engage in commerce over a far greater range of times on Saturdays and Sundays.

Figure 3: Weekday card spending per capita drops 2 percent more at the end of DST



Source: JPMorgan Chase Institute

Conclusion

Daylight Saving Time has been advanced as a policy that both saves energy and increases consumer spending. In this brief, the JPMorgan Chase Institute has explored whether or not the latter claim is supported by evidence. We found that card spending in Los Angeles experienced a relative increase of 0.9 percent in the 30 days following the start of DST, and experienced a relative decline of 3.5 percent in the 30 days following the end of DST.

Though we have focused on the comparison to Los Angeles, note that the analysis should be correctly interpreted as one such comparison. We also compared San Diego and Denver to Phoenix to check the robustness of our result. The start and end of DST in San Diego were associated with a relative increase of 2.9 percent and a relative decrease of 2.2 percent in card spending, respectively. In Denver, the relative increase at the start of DST was 0.8 percent, while the relative decrease at the end was 4.9 percent. These comparisons indicate that economic impact of DST is not uniform, and the impact on a given city is an empirical question.

To place these numbers in context, it is useful to consider the impact of a policy that was specifically designed to increase consumer spending. Agarwal and McGranahan (2012) explores sales tax holidays on specific items like clothing and footwear in over 20 states. They find that sales tax holidays boost daily spending on targeted goods by 8 percent, but the holidays last for only three days, muting the long-term effects. Assuming constant spending each day, an 8 percent increase in spending for 3 days translates to a 0.8 percent increase in spending over 30 days. The effect of the start of DST in Los Angeles was to increase daily card spending per capita by 0.9 percent over a 30 day period, an amount that is comparable to the sales tax holiday. Moreover, this effect spans many classes of goods. The effect at the end of DST, however, is a much larger decrease in spending at -3.5 percent. In other words, DST inadvertently has a deeper and broader effect in Los Angeles on spending than a policy specifically designed to stimulate spending.

It is important to note that there are other reasons to support DST beyond the impacts on consumer spending. To the extent that DST increases the amount of daylight available in the evening, it might make it more difficult for criminals to operate. It is plausible that cities that utilize DST may see some benefit from the perspective of public safety. Alternatively, residents may simply enjoy having the additional daylight. In any evaluation of the policy, consumer spending is one among a set of considerations.

Daylight Saving Time is a live issue, as evidenced by the recent debate over a bill (Assembly Bill 385) designed to end the practice in California. To the extent possible, such debates should be driven by empirical evidence. Our analysis suggests that it is far from a given that local commerce will benefit.

Methodology

The JPMorgan Chase Institute conducted the analyses in this brief using anonymized data on credit and debit card transactions in the cities of Los Angeles and Phoenix from October 2012 to June 2015. The sample is restricted to dates that fall within 30 days of the start (early February to early April) or end (early October to early December) of DST each year, leaving a total of four time-change episodes of each kind. In order to focus on customers whose credit and debit card spend is meaningfully large, customers must have at least five transactions in the 30 days before or after a particular time change in a given year to be retained in the sample for that year. After applying these filters, the final sample of data captures the spending behavior of over 450,000 anonymized customers transacting in Los Angeles and Phoenix.

The empirical methodology for estimating the effect of DST is a modified difference-in-differences. To illustrate the approach, the measurement of the effect for the end of DST is as follows. For each of the years in which the end of DST is observed (2012-2015), daily card spending per capita is calculated for each combination of city and time period:

1. The 30 days after DST ends in Los Angeles (A);
2. The 30 days before DST ends in Los Angeles (B);
3. The 30 days after DST ends in Phoenix (C); and,
4. The 30 days before DST ends in Phoenix (D).

The end of DST is an annual event that appears four times in our data, and each of the above measures is averaged across all four years. To a first approximation, the modified difference-in-differences estimate is calculated in two stages. The first involves capturing the growth in daily card spending per capita in Los Angeles ($A/B - 1$) and the growth in daily card spending per capita in Phoenix over the same period ($C/D - 1$).⁸ In the second stage, the ratio of these growth rates is calculated. The result can be thought of as the difference in the growth rates between the “treatment group” (i.e. Los Angeles, which observes DST) and the “control group” (i.e. Phoenix, which does not observe DST).⁹ This difference can be interpreted as the causal impact of the end of DST on daily spending.

In the case of the end of DST, this effect is -3.5 percent in Los Angeles, which represents the decline in growth of daily card spending per capita that results from the lost hour of sunlight after DST ends. The same methodology can be employed for the beginning of DST. In that case the effect is 0.9 percent, which represents the increase in growth of daily card spending per capita that results from the extra hour of sunlight after DST begins. This result holds up against robustness checks for “day of week” effects¹⁰ and potentially different growth profiles across the two cities.

References

Downing, M. (2005). *Spring Forward: The Annual Madness of Daylight Saving Time*. Counterpoint Publishing.

Graziani, G., van der Klaauw, W., & Zafar, B. (2013). *A Boost in the Paycheck: Survey Evidence on Workers' Response to the 2011 Payroll Tax Cuts*. New York: Federal Reserve Bank of New York.

Kotchen, M. J., & Grant, L. E. (2011). Does Daylight Saving Time Save Energy? Evidence from a Natural Experiment in Indiana. *The Review of Economics and Statistics*, 93(4), 1172-1185.

Endnotes

- 1 Currently, DST starts at 2:00 AM on the second Sunday in March and ends at 2:00 AM on the first Sunday in November.
- 2 The idea of capitalizing on natural light was first introduced by Benjamin Franklin in 1784, humorously offered as an approach to save money on candle costs. In reality, saving on energy costs was an acute concern when resources were scarce. The US temporarily adopted DST nationwide to conserve fuel during both World Wars. The first peacetime implementation began with the Uniform Time Act of 1966.
- 3 (Kotchen & Grant, 2011)
- 4 (Downing, 2005)
- 5 The actual difference in sunset and sunrise times between Los Angeles and Phoenix is approximately 30 minutes, so our estimate is conservative. If it were closer to an hour, the DST effect would be larger.
- 6 The measurement of the DST effect is based upon average daily card spend, measured for 30 days before and after DST starts or stops.
- 7 Personal/Professional services include establishments like child care centers, dry cleaners, and consulting firms, among others. There are many different types of services that may be included here.
- 8 Growth is used here instead of arithmetic difference to accommodate different spending bases in LA and Phoenix.
- 9 Note that the approach used here is more directly described as a ratio-of-ratios method. Instead of calculating the difference between the growth rates in Los Angeles and Phoenix, we calculate the ratio of growth rates and then subtract 1. In the relevant range of values, the result of the difference calculation is virtually identical to the result of the ratio calculation.
- 10 "Day of Week" effects refer to the idea that one month has a different number of Fridays, Saturdays, and so on than the next. Since daily spending is not constant throughout the week (consumers spend more on Fridays and Saturdays), and the distribution of spending within a week may differ across cities, this effect must be mitigated.

Sleep Disorders > News

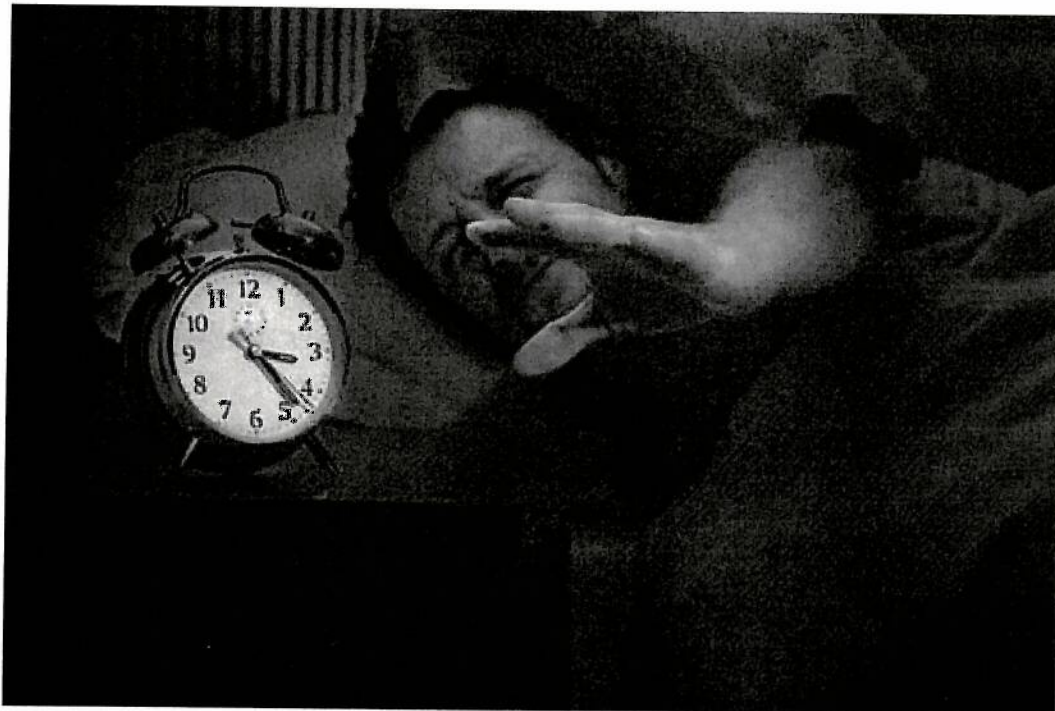


WEBMD HEALTH NEWS



An Hour at What Cost? The Harmful Effects of Daylight Savings

By Lindsay Kalter



Nov. 5, 2021 -- Early this Sunday morning, we will gain an hour, marking more than 100 years of “falling back” -- and doctors say it is a perfect opportunity to counteract the negative health effects of daylight saving time.

When daylight saving time ends again in the spring, we’ll lose an hour. That may not sound like much, but studies have linked it to increased traffic accidents, higher rates

of stroke, and a bump in heart attacks. And although many people take the extra hour this weekend to indulge in waking activities, sleep experts say using that time for sleep could make a significant difference in your health.

“Consistency in the timing of when we sleep and wake is every bit as important as the duration of the time we sleep, and there is plenty of research on the adverse effects,” says Charles Czeisler, MD, chief of the Division of Sleep and Circadian Disorders at Brigham and Women’s Hospital in Boston. “It’s always good to get an hour more of sleep, as long as people take advantage of that. If they go to bed at their usual time and wake up an hour later, it will have health benefits.”

Daylight saving, which was started to conserve energy, forces our internal clocks to compete with our watches. Inside the brain’s hypothalamus is a “master” called the suprachiasmatic nucleus (SCN), which uses hormonal and chemical signals to sync time throughout the body.

Our internal clocks regulate processes including liver function, the immune system, and our body’s physiology, which means any disruption can have significant effects.

In a 2015 study published in *Sleep Medicine*, researchers compared the rate of strokes during the week after daylight saving to the rate 2 weeks before or 2 weeks after. They found the rate was 8% higher the first 2 days after the shift, and people with cancer were 25% more likely to have a stroke than during other times of year. People over 65 were 20% more likely.

A 2019 report found a higher risk of heart attack after both time changes, but particularly during daylight saving.

Interruptions to circadian rhythm can also impair focus and judgment. A 2020 study found fatal traffic accidents increased by 6% in the United States during daylight

saving time.

“Most people think an hour would be inconsequential,” Czeisler says. “And it's true that we can adjust. But even that small adjustment does have consequences.”

Though “falling back” gives you a chance to catch up on lost sleep, it can also be a difficult adjustment, says Ramiz Fargo, MD, medical director for the Sleep Disorders Center and a sleep medicine doctor at Loma Linda University Health.

It may also be hard for people with mood disorders, he says. One study showed that hospitals reported an 11% increase in depressive symptoms just after the fall time change. This may be a result of lost daylight, he says.

But there are ways to make the transition easier and increase your chances of taking full advantage of the extra hour. If possible, Fargo says, it is helpful to make slight adjustments to your schedule in the days leading up to the time change. This, he says, could make for a smoother transition.

“Start going to bed 15-20 minutes early in the days beforehand,” he says. “That will help your body get used to the difference.”

Other tips include:

- Avoid alcohol and caffeine -- both common causes of poor sleep.
- Avoid too much screen time before bed.
- Limit daytime naps to regulate your sleep schedule.
- Avoid heavy meals within a couple hours of bedtime.

“The key is, if your schedule permits you to do so, go to bed when the clock says it's an hour earlier, Czeisler says. “If you've been burning the candle at both ends and

you're chronically sleep-deprived, which most people are, this weekend is your chance to work on it.”

⊕ **Show Sources**

National Institutes of Health: “Circadian Rhythms.”

Sleep Medicine: “Changes in ischemic stroke occurrence following daylight saving time transitions.”

Journal of Clinical Medicine: “Daylight Saving Time and Acute Myocardial Infarction: A Meta-Analysis.”

Current Biology: “A Chronobiological Evaluation of the Acute Effects of Daylight Saving Time on Traffic Accident Risk.”

Epidemiology: “Daylight Savings Time Transitions and the Incidence Rate of Unipolar Depressive Episodes.”

Mayo Clinic: “Sleep tips: 6 steps to better sleep.”

© 2021 WebMD, LLC. All rights reserved.

[View privacy policy and trust info](#) >

SLEEP

Sleep Science

Routines

Mind & Body

Disorders

Naps

Dre

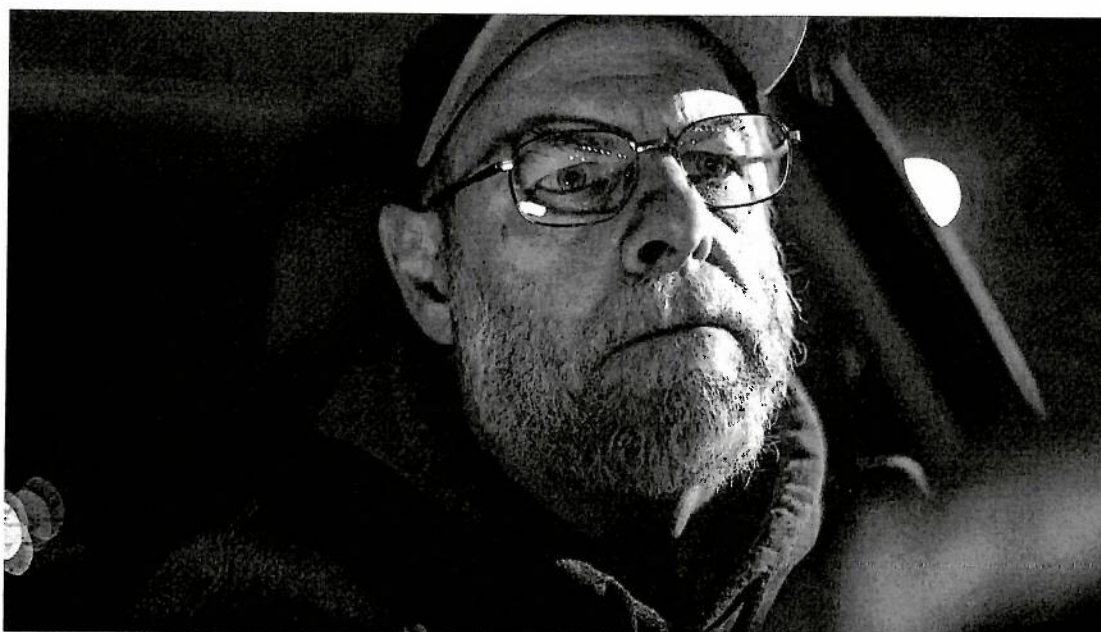
HEALTH NEWS

✓ Fact Checked

The Number of Fatal Car Accidents Spikes After Daylight Saving Time



Written by [Julia Ries](#) on March 6, 2020 — [Fact checked](#) by Dana K. Cassell



The annual time switch increases sleep deprivation, resulting in jet lag-like symptoms that leave people feeling drowsy behind the wheel of a car for several days after we “spring forward.” Getty Images

- **New research finds that fatal car crashes increase by 6 percent the week following daylight saving time (DST).**
- **The annual time switch increases sleep deprivation, resulting in**

The latest in health and wellness, delivered

Enter your email

ADVERTISEMENT

SIGN UP

X

- **Experts say both drowsy driving and drunk driving negatively affect how well you can make fast decisions and make it hard to pay attention to the road and properly assess potential hazards.**
- **In order to offset health risks, experts recommend prioritizing your sleep in the days leading up to the DST transition to help your body ease into the time change.**

Daylight saving time (DST) has become an increasingly controversial topic in recent years.

The biannual time switch has been linked to a string of negative side effects such as workplace injuries, sleep disturbances, stroke, and heart attack.

To offset those side effects, certain states, including Florida, Alabama, and Washington, are considering making DST permanent, nixing the need to adjust the clocks twice a year.

Now, new research out of the University of Colorado, Boulder shows daylight savings may even put our health at greater risk than we previously thought.

In the week following DST, fatal car accidents spike by nearly 6 percent, according to the new study[📄] recently published in the journal Current Biology.

“Our study provides additional, rigorous evidence that the switch to daylight saving time in spring leads to negative health and safety impacts. These effects on fatal traffic accidents are real, and these deaths can be prevented,” the study’s senior author Céline Vetter, DrPhil, an assistant professor of integrative physiology, wrote in an email statement.

ADVERTISEMENT

The latest in health and wellness, delivered

Enter your email

ADVERTISEMENT

SIGN UP



Fatal car accidents spike when we ‘spring’

The researchers looked at 732,835 car accidents recorded through the U.S. Fatality Analysis Reporting System that took place between 1996 and 2017.

The researchers discovered a consistent rise in fatal car crashes during the week we “spring forward.”

That increase spiked in 2007 when the Energy Policy Act switched the DST change to March from April, further solidifying the link between car crashes and daylight saving.

On average, the time change causes a 6 percent increase in fatal car accidents in the week following the spring DST transition, which amounts to about 28 additional deaths each year.

“Our findings are in line with more general research showing that the ‘mini jetlag’ caused by the 1-hour loss due to DST is most severe in the first days after transition, and can be observed up to 2 weeks,” study co-author Josef Fritz, PhD, a postdoctoral fellow with the circadian and sleep epidemiology lab at University of Colorado, Boulder, told Healthline.

The research team also found the further west a person lives, the greater their risk of a crash.

Those in the western edge of their time zone — i.e., people in Amarillo, Texas, and St. George, Utah — had about an 8 percent increase in fatal car crashes.

The latest in health and wellness, delivered

Enter your email

ADVERTISEMENT

SIGN UP



Because the authors only looked at the most severe car accidents, they suspect the risk of crashes around DST may be even greater.

Drowsy driving is similar to driving under the influence

You've probably heard that drowsy driving is just as dangerous as drunk driving. Like alcohol, sleep deprivation can have a nasty effect on the body.

"Both drowsy driving and drunk driving negatively impact how well you can make fast decisions, lead to delayed reaction times, and make it hard to pay attention to the road and properly assess potential hazards," Fritz said.

The time switch is known to cause a range of detrimental health effects beyond car crashes.

"The sudden change in clock time can disrupt your sleep pattern, leading to a decrease in total sleep time and reduced sleep quality. This sleep disruption can reduce daytime alertness," says Dr. Kelly Carden, the president of the American Academy of Sleep Medicine.

It can also increase people's risk of having a heart attack or stroke.

Though the study didn't address whether standard time or DST is better, it adds to the bulk of evidence that, "It would be better for sleep, the body clock, and overall health to have more morning light and less evening light, as is the case under permanent standard time," Vetter told Healthline.

"From our perspective, the best option, not only for traffic accident risk but also health and well-being in general, would be to get rid of DST

The latest in health and wellness, delivered

Enter your email

ADVERTISEMENT

SIGN UP



Ease into the time shift

In order to offset those risks, health experts recommend prioritizing your sleep in the days leading up to the DST transition.

“It’s important to begin adjusting to daylight saving time a few days before the time change takes effect,” Carden said.

Maintaining a regular sleep cycle leading up to the spring DST transition can reduce the fatigue that often strikes, Vetter noted.

The researchers recommend minimizing how much light you’re exposed to from phones, laptops, and TV at night.

Avoid heavy meals for dinner, and try not to drink coffee or alcohol right before going to bed.

If you do still feel groggy after the time switch, schedule in some naps to help your body adjust.

Eventually, your body will adjust — it might just take some time and TLC to get there.

The latest in health and wellness, delivered

Enter your email

ADVERTISEMENT

SIGN UP

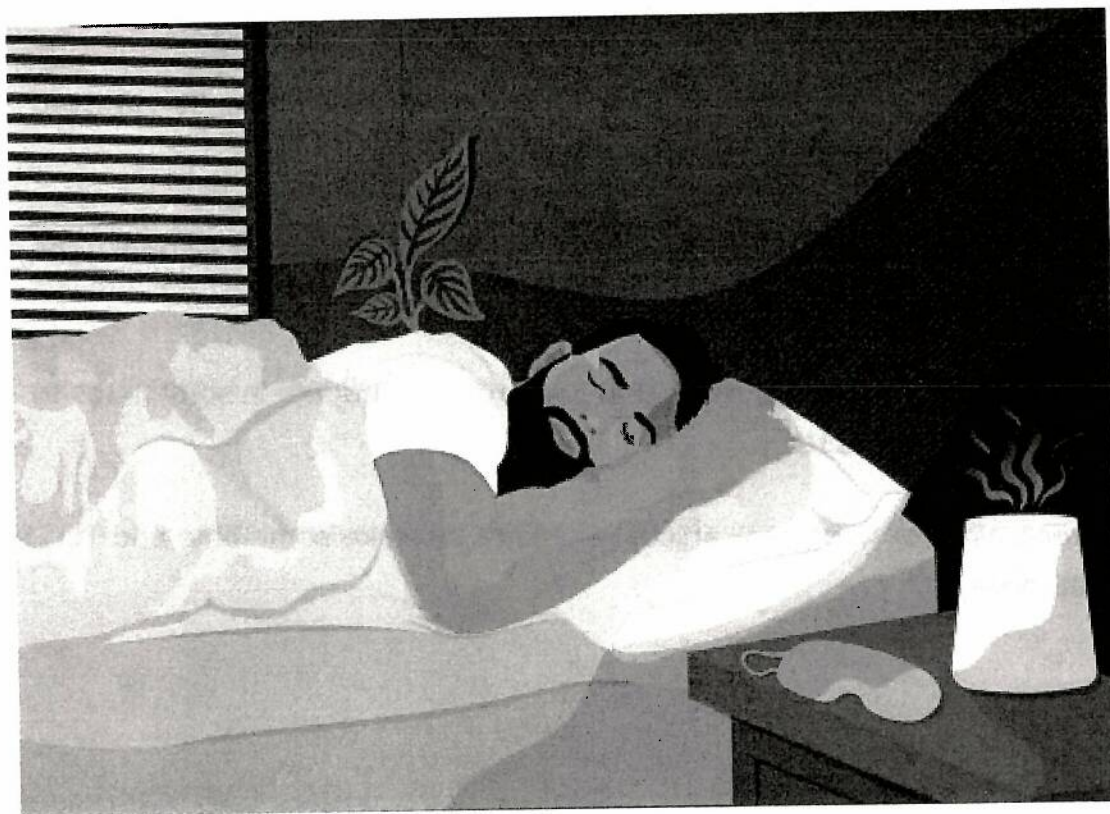


Loading ad

The bottom line

New research has found there's a 6 percent spike in fatal car accidents the week after we "spring forward."

That spike is even higher — about 8 percent — if you live on the western edge of your time zone. To mitigate the risk of a car crash, health experts recommend easing into the time shift: Adjust to DST a few nights before the switch, avoid caffeine and food at night, and take naps if need be.



The latest in health and wellness, delivered

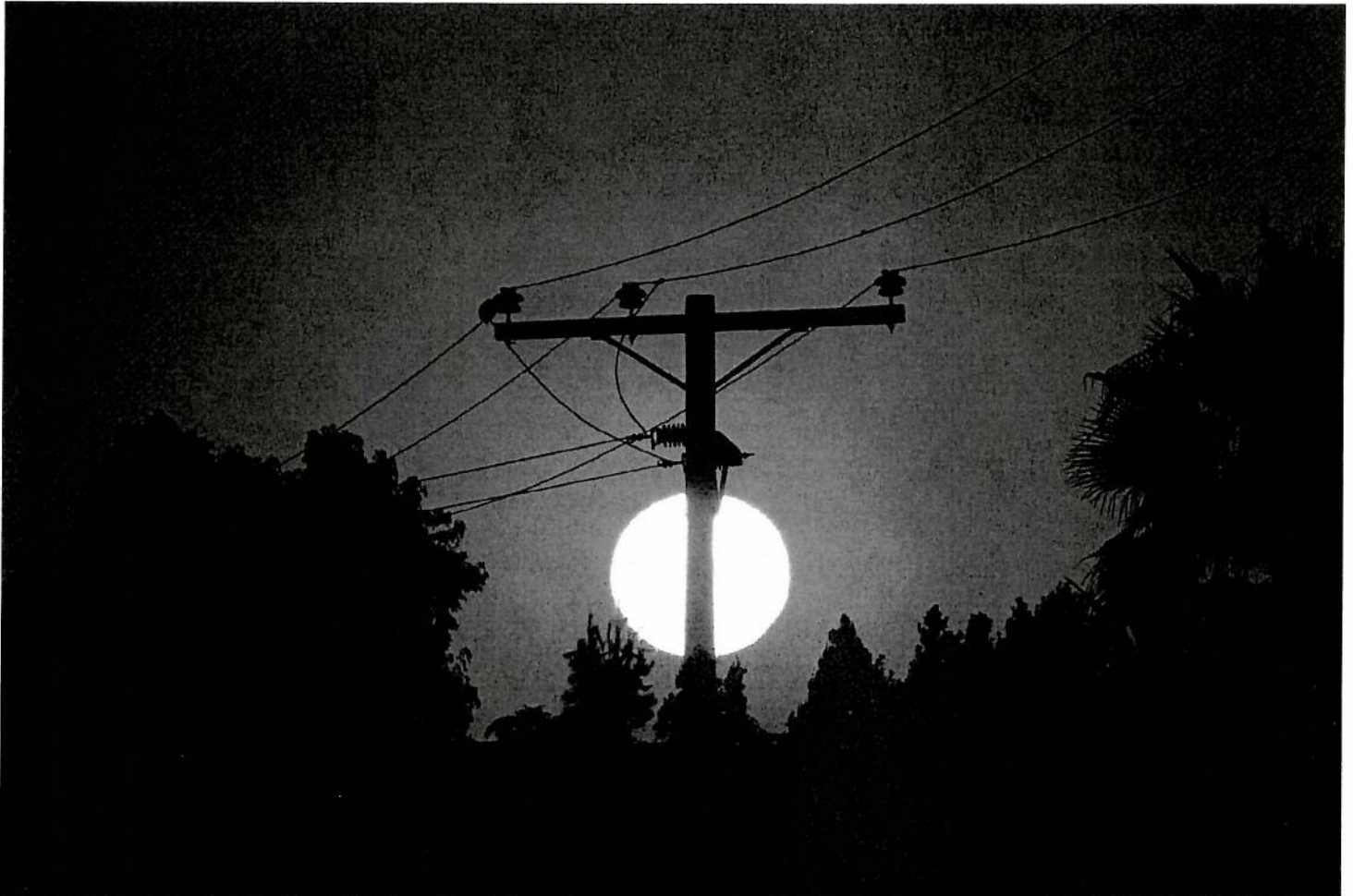
Enter your email

ADVERTISEMENT

SIGN UP



Daylight Saving Time Should Be Permanent. The Pandemic Shows Us Why



The sun sets behind power lines in Los Angeles, Calif. on Sept. 3, 2020. Frederic J. Brown—AFP/Getty Images

BY ORRIN G. HATCH SEPTEMBER 14, 2020 10:39 AM EDT

IDEAS *Hatch is chairman emeritus of the Orrin G. Hatch Foundation. A Utah Republican, he served in the U.S. Senate from 1977 to 2019.*

Fall typically signifies a return to normalcy—back to sports, back to school and back to work after a long summer vacation. But not this year.

COVID-19 maintains a stranglehold on American life, ensuring that fall 2020 will be anything but normal. Pandemic restrictions have left our nation

grappling with a severe economic recession alongside a growing mental health crisis. While there's no panacea for these problems, one simple step by Congress could help alleviate the pain: Passing federal legislation to make daylight saving time (DST) permanent.

TIME Top Vi...

WATCH MORE

Kerry Washington on Why Women Must Bec... Their Own 'Olivia Papes' to Fix Politics

For months, Republicans and Democrats have been at loggerheads over a broad stimulus package—but a permanent switch to DST would be a stimulus package all on its own. It would boost economic growth, ease the mental health crisis, reduce crime and even save lives. That's why Congress must act now. The clock is ticking, and we can't afford to move it back.

Understanding the history of DST strengthens the case for its future. It's a common misconception that DST was invented for farmers—the reasons behind it have always been centered on cost-savings and the economy. Congress first implemented the clock change during World War I to conserve fuel in the summer. Over time, however, the salutary effects of increasing daylight hours became so clear that Congress voted to extend DST in 2005 so that we now observe it eight months of the year.

PAID PARTNER CONTENT

The First-Ever All-Electric Chevy Silverado

BY CHEVROLET

The argument for making DST permanent is strong in a normal year—but amid a global pandemic, it's stronger than ever. Our society is staring down the barrel of a mental health disaster unseen in our lifetimes. Since the lockdowns began, the number of adults reporting symptoms of anxiety and depression has more than tripled. Compounding this crisis is an economy in shambles: COVID-19 has destroyed an estimated 30 million jobs since March and unemployment today sits at 8.4%.

Now consider this—on November 1, we will move our clocks back one hour to reflect U.S. standard time. The result will be painfully short days, with the sun setting in many states before 5 p.m. Each year, we see higher rates of depression associated with less exposure to sunlight; higher energy consumption across the country; higher traffic fatalities with more Americans driving in the dark; higher incidence of crime; and a steep decline in retail sales with fewer consumers willing to shop at night.

Why do we do this to ourselves? Why do we observe a time change that ultimately hurts small businesses and makes life more difficult for individuals struggling with anxiety and depression? Our economy is on the ropes, and the number of Americans reporting mental illness has reached record levels. So why would we change our clocks this November knowing it will only make the situation worse?

Here's a radical idea: Maybe we shouldn't.

This year, and every year hereafter, we should keep our clocks fixed to daylight saving time. This is the time standard we observe for most of the year anyway—from the second Sunday in March to the first Sunday in November. The public health, social and economic benefits of making this change are manifold.

Research suggests an association between the biannual clock change and not just seasonal affective disorder but stroke and cardiac arrest as well. By allowing more people to commute home during daylight hours, permanent DST could likewise decrease the risk of car accidents, saving more than 360 lives each year, according to a meta-study by Rutgers researchers.

What's more, making year-round DST and having fewer hours of darkness could help reduce crime. According to the Brookings Institute, robbery rates fall by an average of 7% when DST begins. When Congress extended DST by four weeks in 2007, it resulted in \$59 million in annual social cost savings because of a reduction in robberies.

Then, of course, there's the economy. A study conducted by JPMorgan Chase revealed that consumer spending drops by about 3.5% when the nation makes the switch back to standard time—a result of fewer daylight hours in the evening. This amounts to millions of dollars lost by retailers and small businesses each year. Making DST permanent, however, would push back sunsets to reasonable hours, encouraging shopping and retail sales during the winter months.

Given the obvious benefits of making DST permanent, no wonder there's a groundswell of support for making this change across US time zones. As of this year, 32 state legislatures have introduced bills to abolish the time change in November.

There's just one catch: states can't make the switch without federal approval. That's why Senator Marco Rubio (R-FL) has introduced the Sunshine Protection Act, which would eliminate the return to standard time to make DST year-round across the country. The President himself has endorsed this legislation, and it has garnered widespread bipartisan support from senators in the heartland and on both coasts.

Over 42 years of Senate service, I made it my life's mission to advance commonsense solutions to the nation's most pressing problems. In the process, I passed more bills into law than anyone alive today. All of that is to say, I know

a good, bipartisan solution when I see one—and the Sunshine Protection Act is exactly that. Making DST permanent would be a shot in the arm for our economy and a boon to millions of Americans suffering from anxiety and depression. It's also one of the few bills that stands any chance of passing in a divided Congress, which is why I call on our leaders in Washington to act *today* to get it across the finish line.

We are making significant progress in the fight against COVID-19, and making DST year-round would only help us advance the line. Now is not the time to fall back.

