

Part 2

Argument

Directions: Closely read each of the *four* texts provided on pages 11 through 17 and write a source-based argument on the topic below. You may use the margins to take notes as you read and scrap paper to plan your response. Write your argument beginning on page 1 of your essay booklet.

Topic: Should the United States eliminate Daylight Saving Time?

Your Task: Carefully read each of the *four* texts provided. Then, using evidence from at least *three* of the texts, write a well-developed argument regarding whether or not the United States government should eliminate Daylight Saving Time. Clearly establish your claim, distinguish your claim from alternate or opposing claims, and use specific, relevant, and sufficient evidence from at least *three* of the texts to develop your argument. Do *not* simply summarize each text.

Guidelines:

Be sure to:

- Establish your claim regarding the elimination of Daylight Saving Time in the United States
- Distinguish your claim from alternate or opposing claims
- Use specific, relevant, and sufficient evidence from at least *three* of the texts to develop your argument
- Identify each source that you reference by text number and line number(s) or graphic (for example: Text 1, line 4 or Text 2, graphic)
- Organize your ideas in a cohesive and coherent manner
- Maintain a formal style of writing
- Follow the conventions of standard written English

Texts:

Text 1 – History of Daylight Saving Time – DST

Text 2 – Pros & Cons: Daylight Savings Time

Text 3 – Seize the Daylight: The Curious and Contentious Story of Daylight Saving Time

Text 4 – The Cost of Daylight Saving Time

Text 1

History of Daylight Saving Time – DST

DST is a change in the standard time with the purpose of making better use of daylight and conserving energy.

Clocks are set ahead one hour when DST starts. This means that the sunrise and sunset will be one hour later, on the clock, than the day before.

5 Although DST has only been used for about 100 years, the idea was conceived many years before. Ancient civilizations are known to have engaged in a practice similar to modern DST where they would adjust their daily schedules to the Sun’s schedule. For example, the Roman water clocks used different scales for different months of the Year. ...

10 Germany was the first country to implement DST. Clocks there were first turned forward at 11:00 p.m. (23:00¹) on April 30, 1916.

The rationale was to minimize the use of artificial lighting in order to save fuel for the war effort during World War I. The idea was quickly followed by Britain and many other countries, including the United States. Many countries reverted back to standard time post-World War I. It wasn’t until the next World War that DST made its return in many countries in order to save vital energy resources for the war. ...

15 In the United States, DST caused widespread confusion from 1945 to 1966 for trains, buses and the broadcasting industry because states and localities were free to choose when and if they would observe DST. Congress decided to end the confusion and establish the Uniform Time Act of 1966 that stated DST would begin on the last Sunday of April and end on the last Sunday of October. However, states still had the ability to be exempt from DST by passing a local ordinance.

20 The U.S. Congress extended DST to a period of ten months in 1974 and eight months in 1975, in hopes to save energy following the 1973 oil embargo. The trial period showed that DST saved the energy equivalent of 10,000 barrels of oil each day, but DST still proved to be controversial. Many complained that the dark winter mornings endangered the lives of children going to school. After the energy crisis was over in 1976, the U.S. changed their DST schedule again to begin on the last Sunday in April. DST was amended again to begin on the first Sunday in April 1987. Further changes were made after the introduction of the *Energy Policy Act of 2005*. ...

30 The DST schedule in the U.S. was revised several times throughout the years. From 1987 to 2006, the country observed DST for about seven months each year. The current schedule was introduced in 2007 and follows the Energy Policy Act of 2005, which extended the period by about one month. Today, DST starts on the second Sunday in March and ends on the first Sunday in November. Currently, most of the United States observes DST except for Hawaii and most of Arizona, as well as the U.S. insular areas of Puerto Rico, the U.S. Virgin Islands, American Samoa, and Guam.

—excerpted from “History of Daylight Saving Time – DST”
timeanddate.com, 1995-2014

¹23:00 — military time

Text 2

Pros & Cons: Daylight Savings Time

What are the Pros of “Daylight Savings Time”?...

Reduces Exposure to Artificial Lighting

An advantage of daylight savings time is the ability to reduce exposure to artificial lighting, which is the use of lamps and light fixtures. It is valuable to provide the correct light intensity and color spectrum for each task or environment. Otherwise, energy not only could be wasted but over-illumination can lead to adverse health and psychological effects. Beyond
5 the energy factors being considered, it is important not to over-design illumination, lest adverse health effects such as headache frequency, stress, and increased blood pressure be induced by the higher lighting levels. In addition, glare or excess light can decrease worker efficiency. ...

Prevents Vitamin D Deficiency

An advantage of observing daylight savings time is having the ability to prevent
10 vitamin D deficiency that is produced by the body from sunlight. Excessive seclusion from the sun may lead to vitamin D deficiency unless adequate amounts are obtained through diet. A lack of sunlight, on the other hand, is considered one of the primary causes of Seasonal Affective Disorder (SAD), a serious form of the “winter blues”. SAD occurrence is more
15 prevalent in locations farther from the tropics, and most of the treatments (other than prescription drugs) involve light therapy, replicating sunlight through lamps tuned to specific wavelengths of visible light, or full-spectrum bulbs. According to a study conducted by the American Academy of Neurology, results indicate that more exposure to sunshine early in a person’s life relates to less risk from Multiple Sclerosis (MS) later in life.

Increases Sunlight Effect on Cardiovascular Illnesses

An advantage of observing daylight savings time is the effect on cardiovascular illnesses
20 through having additional sunlight exposure from the shift in time. In January 2014, British researchers found that sunlight may lower blood pressure, a dangerous factor for heart attacks and stroke. It was reported that 20 minutes of Ultraviolet A (UVA) sunlight lowered blood pressure by a small but significant amount by dilating¹ blood vessels and easing hypertension.²
25 The Journal of Investigative Dermatology³ tested 24 volunteers and found that the sun increases nitric oxide levels, a chemical linked to blood flow, and results in lowered blood pressure. This research supports the claim of Richard Weller of the University of Edinburgh and Martin Feelisch of the University of Southampton, who found that people who live in the darker north have higher rates of heart disease. They concluded, “We are concerned that
30 well-meaning advice to reduce the comparatively low numbers of deaths from skin cancer may inadvertently increase the risk of death from far higher prevalent cardiovascular disease and stroke, and goes against epidemiological⁴ data showing that sunlight exposure reduces all cause and cardiovascular mortality.” ...

¹dilating — enlarging

²hypertension — high blood pressure

³dermatology — branch of medical science dealing with the skin and its diseases

⁴epidemiological — factors controlling the presence or absence of disease

What are the Cons of “Daylight Savings Time”?...

Effects Health & Healthcare Devices

35 A disadvantage of observing daylight savings time is the effects on health and healthcare devices, especially when adequately not prepared in advance for the time change. Some experience sleep deprivation and poor health due to the shift in time during the implementation of daylight savings time. Medical devices may generate adverse events that could harm patients, without being obvious to clinicians responsible for care. These problems are compounded when the daylight savings time rules themselves change; software developers must test and perhaps modify many programs, and users must install updates and restart applications. Consumers must update devices such as programmable thermostats or manually adjust the devices’ clocks. Medical devices, such as pacemakers, defibrillators, and glucose monitors, have to be adjusted as serious consequences may result if ignored since these devices operate on a standard schedule. Some studies have also found that more heart attacks tend to occur after the shift in time as well as the increase in suicide rates. ...

Disturbs Sleep Pattern

45 A disadvantage of observing daylight savings time is the disturbance in sleep pattern, especially for those that are critical of time punctuality. Light plays an integral role in sleep, in which light suppresses the secretion of the sleep-inducing substance melatonin. Light exposure tends to advance the circadian rhythm that is crucial during waking stage while darkness impedes the circadian rhythm which is crucial for sleeping. Those exposed to significant amounts of light directly before sleep are claimed by several surveys to have [sic] harder time waking up. Thus, the shift in time is likely to disturb sleep patterns to various extents that differs between individuals in accordance of each individuals [sic] personal sleep behaviors. ...

Effects Farmers’ Morning Productivity

55 A disadvantage of observing daylight savings time is the effects experienced on farmers’ morning productivity. Farmers oppose daylight savings time on the basis that grain is best harvested after dew evaporates, so when field hands arrive and leave earlier in summer their labor is less valuable. For such farmers, daylight earlier in the day is more beneficial rather than in the evening. Dairy farmers are another group that complains of time change as their cows are sensitive to the timing of milking, so when their deliveries need to be made earlier their systems are disrupted. Conclusively, observing daylight savings time is a disadvantage for farmers that are highly dependent on a consistent time schedule which can deter their production. ...

—excerpted from “Pros & Cons: Daylight Savings Time”
theprocons.com, October 22, 2014

Text 3

Seize the Daylight: The Curious and Contentious¹ Story of Daylight Saving Time

... A primary impact of daylight saving time is the reduction of energy consumption, and this has been the major impetus² for numerous countries to adopt DST. Because factories, businesses, and government offices, among others, often open at a time when the sun has already risen but do not close until after sunset, a clock advance of one hour allows them to save significant energy for lighting. The extra hour of evening daylight saves most households one hour of electricity for evening lighting, and also draws people outdoors, cutting additional indoor energy use. This savings may be wholly or partially offset by additional lighting needed in the morning, but many people sleep through the hour of sunrise, whereas almost everyone is awake during the hour of sunset. DST also often reduces the daily peak needed for electricity production (when the least efficient power sources are used) by spreading out usage to later in the evening. The DOT [Department of Transportation] concluded that the total electricity savings associated with DST amounted to about 1 percent in spring and fall, corresponding to national savings of forty to fifty megawatt hours per day.

DST also might affect home heating, air conditioning, and other forms of energy consumption. For example, the extra hour of light in the evening could cause an increase in recreational and shopping travel by automobile (and therefore an increase in gasoline consumption) that might not be offset by a corresponding decrease in the morning. On the other hand, more outdoor activities might save energy by decreasing the use of TV sets and appliances. The DOT did not detect any significant DST impact on these areas.

Another major impact of DST is the reduction of motor-vehicle accidents and fatalities. Driving after dark is much more dangerous than driving in daylight, and while there are other factors, this difference results primarily from decreased visibility. Since DST makes evenings lighter and mornings darker, the evening accident rate should decrease, while the morning rate should increase, for drivers and passengers as well as pedestrians. Since evenings see significantly more traffic than mornings — often twice as much — the overall daily accidents might be expected to decrease under DST. And better visibility is all the more important when another element is considered: early-evening drivers are more likely than morning drivers to be tired or inebriated.³ Certainly, traffic-pattern changes, weather, and other factors also may play a role in the incidence of accidents, but a shift to DST would be expected to reduce total accidents. In fact, the DOT study found a 0.7 percent decrease in fatal motor vehicle accidents for March and April under DST as compared with standard time. The decline was small but important, corresponding to approximately fifty lives saved and two thousand injuries avoided for the two-month period.

On the heated topic of safety for schoolchildren, dark DST mornings increase the risk of accidents for children on their way to school. However, the extra light from DST in the late afternoon decreases the risk of accidents for children in activities such as riding bicycles, engaging in unsupervised outdoor play, or traveling as passengers in cars. The DOT study found that under DST in March and April, the increase in morning accidents seemed to be more than offset by the decrease in evening accidents. Despite these findings, one political fact was crystal clear: The news stories of the tragic deaths of young victims in morning accidents carried far more emotional weight than statistics showing that fatalities were avoided in the evening.

Another area of DST impact is crime reduction. People generally feel safer in the daylight, and many types of crime are believed to be influenced by lighting conditions. For example, more light in the evening decreases the opportunity for street crime against

¹contentious — controversial

²impetus — cause

³inebriated — intoxicated

people returning home from work. The DOT study found that violent crime in Washington, D.C., was reduced by 10 to 13 percent during periods of daylight saving time. ...

50 Daylight saving time benefits many enterprises related to outdoor pursuits, and it also impacts a number of other economic areas, such as manufacturing, domestic trade, construction and public transportation. Groups surveyed in these areas mildly favored DST or felt it had no effect. A shift of clock time under DST lengthens the overlap of U.S. business hours with Europe and shortens the overlap with Japan. A DOT analysis showed no DST effect on communications with Japan, but an increase in communications with Europe. ...

—David Prerau
excerpted and adapted from *Seize the Daylight: The Curious and Contentious Story of Daylight Saving Time*, 2005
Thunder's Mouth Press

Text 4

The Cost of Daylight Saving Time

... It turns out that more daylight gives us more time to shop, drive, grill and perfect our golf game. What it doesn't do is cut our energy use, as is the intent, says Michael Downing, a lecturer in English and author of *Spring Forward: The Annual Madness of Daylight Saving Time*.

5 In fact, when we lose an hour's sleep at 2 a.m. on March 9 [2014]—beginning the eight-month DST season—it will not reduce our electricity use even by one half of 1 percent, says Downing, contrary to the most recent study by the Department of Energy.

10 While the government continues to claim that the country reduces electricity use for each day during DST, Downing says we come nowhere near that. Some studies do report small reductions in electricity use, but the most comprehensive study of household energy demand and many others report an increase in overall energy consumption ranging from 1 to 4 percent during DST.

15 “The barbecue grill and charcoal industries say they gain \$200 million in sales with an extra month of daylight saving—and they were among the biggest lobbies in favor of extending DST from six to seven months in 1986,” he says. Lobbying alongside them that year was the golf industry, which says that additional month of daylight has meant more time on the links and an additional \$400 million in revenue.

20 But what's good for retail is bad for overall energy use, says Downing. “If it's light when we leave work and we decide to go to the mall or a restaurant or head for a summer night at the beach, we don't walk there; we get in our cars,” he says.

Gas consumption goes up during daylight saving time—“something the gas industry has known since the 1930s,” Downing says. That's why it lobbied hard to reintroduce DST after two short-term experiments with it to conserve electricity and other energy resources during World Wars I and II.

25 But more driving also means more carbon dioxide in the atmosphere, which exacerbates¹ climate change, says Downing. Moreover, the reduced cost of indoor lighting on sunny spring and summer afternoons is offset by higher air-conditioning costs at offices, factories and shopping malls.

30 “Every time the government studies [DST], it turns out that we are really saving nothing when all is said and done,” Downing says.

35 And yet, at the urging of many industry lobbies, the government has extended the duration of DST several times. In 1966, President Lyndon B. Johnson signed the Uniform Time Act, which instituted daylight saving time, beginning on the last Sunday of April and ending the last Sunday of October—six months in all. This act standardized customs that varied from state to state between 1945 and 1966.

40 Then in 1986, the federal law was amended to add a full month to DST, making it begin the first, not the last, Sunday in April. “This change was spurred by a large number of lobbies: golf and golf equipment, home improvement, the Hearth, Patio and Barbecue Association and the gas and fuel industries, which saw a potential boon to their sales,” Downing says. “There was little concern for those living in western parts of each time zone, where sunrise could be as late as 8:30 a.m. some months. ...

In 2005, seven months of DST became eight with the passage of the Energy Policy Act, which moved the start date to the second Sunday of March and ended it a week later, on the

¹exacerbates — aggravates

45 first Sunday in November. The change from the end of October to early November was not driven by energy savings, but by the National Association of Convenience Stores (NACS), who wanted Halloween to occur during DST. ...

“So today we have eight months of daylight saving and only four months of standard time,” he says. “Can you tell me which time is the standard?” ...

—Gail Bambrick
excerpted and adapted from “The Cost of Daylight Saving Time”
now.tufts.edu, March 4, 2014
