Over time, solutions to old problems may need to be reconsidered in the light of technological advancement. The creation of the U.S. highway system was once sufficient to solve a set of problems and bring about societal benefits both during and after its construction, but now the system needs to be updated to address a new set of problems and to meet the new needs of society.

Read both passages carefully.

Connecting the Country: The Interstate Highway System

by Eric Arnesen

1 Before Dwight D. Eisenhower became president of the United States in 1953, he had been a career military man. Shortly after the end of World War I (1914–1918), then-Lieutenant Colonel Eisenhower participated in a War Department project. It involved a convoy of army vehicles driving from the East Coast (Washington, D.C.) to the West Coast (San Francisco). Sounds easy, right? Well, at that time, there were few highways. Most roads that existed were unpaved. The War Department hoped to make a point: There was a desperate need for better, safer, and faster highways in America.

2 The convoy, consisting of 81 vehicles and 282 members of the military, departed on July 7, 1919. It covered 3,251 miles in 62 days—a "world's record," one military officer stated, for "total continuous distance traveled." Half the trip took place on dirt roads, however, and more than 500 miles of those roads proved to be almost impassable for the military's heavy vehicles. Soldiers had to help push or pull the vehicles when they got caught in mud. Eisenhower remembered the experience long after it was over. When he later observed the two-lane *autobahn*[1] in Germany during World War II (1939–1945), he saw the "wisdom of broader ribbons across the land."

3 Some groups lobbied on behalf of greater road construction, and federal officials drafted reports: *Toll Roads and Free Roads* (1939) and *Interregional Highways* (1944) in particular made the case for a national highway system. Congress even passed a Federal-Aid Highway Act in 1944, but it didn't provide any money to fund construction. Then, as the fighting in World War II ended, soldiers returned from overseas, got married, and started families. Many Americans moved out of the cities into the suburbs. The number of cars on America's roads skyrocketed. Traffic congestion grew, and safety issues soared.

[1]The autobahn refers to high-speed expressways built in Germany.

4 By the time Eisenhower took office as president in 1953, much had changed since his 1919 transcontinental trip. One thing hadn't changed, however: There still was no national highway system.

5 The Eisenhower Administration threw its weight behind new legislation designed to address the issue. In 1956, Congress passed a new Federal-Aid Highway Act. It designated $25 billion for the construction of 40,000 miles of interstate highway over a period of 12 years. In reality, the project took 35 years, cost about $114 billion, and created more than 47,000 miles of highway.

6 While Eisenhower considered the highway system important for the American public and certainly wanted better and safer roads, more than those issues motivated him. The president believed that highway construction could be "an important economic tool" in the hands of the government. It could be used to boost employment in hard times. Highway construction and maintenance meant jobs for tens of thousands of people. Employed people felt good about spending their wages, so good jobs would boost the U.S. economy. A highway system also allowed for the transportation of goods and people.

7 Eisenhower included national defense in his argument for better roads, too. During the Cold War[2] (1947–1991), the potential for a catastrophic nuclear war loomed large in Americans' imagination. Fears of nuclear bombs dropping on U.S. cities forced the federal government to consider how it could safely evacuate an estimated 70 million people. The government believed that well-built and well-designed highways should be part of the solution.

8 As Eisenhower noted in his memoirs, "Our roads ought to be avenues of escape for persons living in big cities threatened by aerial attack or natural disaster, but I knew that if such a crisis occurred, our. . .highways, too small for the flood of traffic of an entire city's people going one way, would turn into traps of death and destruction." Even though excellent roads would hardly address the large-scale disaster of a nuclear war, the political climate during the Cold War added weight to the civil defense arguments in support of the highway bill.

9 In the end, the Interstate Highway System created a partnership of sorts between the federal government and the state governments. The federal government raised and provided the majority of the funds to the states. The states built and maintained the portions of the highway within their boundaries.

[2]The Cold War was a period of intense diplomatic and political tension between the United States and the Soviet Union and their respective allies, when the fear of nuclear war hung over the world.

Go On ▶

10 The Interstate Highway System was credited—or blamed—for many things. It linked the nation's urban and suburban areas to one another. It made regional and cross-country travel much easier and safer for drivers. It strengthened the country's "car culture," encouraged economic growth, and prompted the growth of hotels, restaurants, gas stations, and other businesses. At the same time, critics believe that the new highway system and the gasoline consumption it encouraged contributed to air pollution, urban sprawl, and the destruction of low-income neighborhoods to make way for new superhighways.

11 Americans can agree on one thing about the Dwight D. Eisenhower National System of Interstate and Defense Highways: The monumental government program profoundly changed the way Americans live. It is considered the "greatest public works project in history."

Excerpt from Remarks Prepared for Delivery by U.S. Secretary of Transportation Elaine L. Chao

U.S. Department of Transportation 50th Anniversary Open House
March 29, 2017

1 It is so exciting to celebrate the 50th birthday of the U.S. Department of Transportation, and to preview the exciting new trends transforming the transportation system today.

2 When I first came to the Department so many years ago, smart phones and drones were part of the Star-Trek universe.

3 Well, they're not science fiction anymore!

4 Today, we are seeing a technological revolution that will change the way we work, live, travel, and conduct commerce. And this Department has an unprecedented opportunity to help shape that future for our country.

5 In the 50 years since the Department first opened its doors on April 1, 1967, we have seen an amazing transformation of our country's infrastructure.

6 The national highway system initiated in the 1950's has been completed.

7 Great airports were built.

8 Mass transit became an urban staple.

9 Freight railroads have become an attractive industry again.

10 Our country's ports became international, intermodal hubs.

11 This infrastructure has been the backbone of our country's economy for the past 50 years, strengthening competitiveness and creating unprecedented mobility and opportunity.

12 Today, however, the infrastructure we all grew up with is aging. Technology—the great disruptor—is creating a new type of transport based on digital—not human—command and control. In the future, computers, not people, will be in the driver's seat. That means "self-driving" cars, trucks, railroad cars, ships and drones.

13 This technology has the potential to change our lives in ways we can't imagine.

Go On ▶

14 The trend of ownership of personal vehicles is evolving. Many people may choose ride sharing in self-driving cars over personal ownership. Design and construction of future buildings, therefore, will not need as much parking space as they do today. Self-driving cars and trucks will talk to each other—vehicle to vehicle communication—and keep a safe distance, reducing the number of highway fatalities. Our infrastructure will be "smart"—like our phones—so it can talk to and direct all the vehicles around it. Around the world, drones are already in the air inspecting agriculture, delivering packages and improving railway, pipeline and shipping safety. And new, satellite-based guidance systems will make aviation more reliable and safer. Long delays at the airport will become the exception rather than the rule.

15 Change, however, brings many challenges. And the Department of Transportation will be at the forefront of shaping this change, by focusing on the three priorities at the heart of our mission: enhancing safety, refurbishing infrastructure and preparing for the future. . . .

16 Safety will continue to be a priority—it's the core of the Department's mission. And the President's recently announced budget protects those safety functions. Going forward, we must strengthen safety with a balanced regulatory approach, based on sound science and risk-based analysis. The goal is to prevent accidents and fatalities before they happen.

17 Emerging technology also requires a regulatory approach that ensures safety, while encouraging innovation and preserving creativity. This last point is especially important. Creativity and innovation are part of the great genius of America—one of its hallmarks. We must safeguard and nurture this legacy. But it is also critical that Silicon Valley step up and share with the public their understanding of automated technology, and address legitimate public concerns about safety and privacy.

18 Another key issue, of course, is how to pay for infrastructure without saddling future generations with massive debt. The President's plan hopes to unleash the potential for private investment in infrastructure by incentivizing public-private partnerships. This is one additional way to address the resource needs of transportation systems. . . .

19 As the former Secretary of Labor, I am concerned about the impact of technology on workers and jobs. Smart technology will still require human interaction to function at its best. But the new jobs being created will require higher skills and digital literacy. So education and skills training will be more important than ever before. We need to help ease the transition.

20 The changes and challenges we face today are opportunities to work together. That's why I want to work with you—my colleagues, elected officials and stakeholders—to incentivize the future, eliminate unnecessary barriers to change, and usher in a new era of safety, mobility and prosperity for our country and its residents. Thank you again for being here today to help celebrate the 50th anniversary of the U. S. Department of Transportation, and to preview the future we will help shape together!

Go On ▶

Writing Prompt

1. **You have read two passages discussing the U.S. highway system and other forms of transportation. Write an essay in which you compare the challenges and benefits involved in the creation of the national highway system to the challenges and benefits discussed in Secretary Chao's speech, especially those related to advancing technology and the needs of the public. Incorporate material from both passages in your essay, citing sources either formally or informally. Your essay should blend writing from at least two genres (argumentative, expository, and/or narrative).**

Directions to the Student

After you finish your prewriting activity, write your paper in the space provided. You may use a standard dictionary, thesaurus, or grammar handbook to check your paper for correctness. Please refer to the writer's checklist as you are writing your response to the prompt.

Writer's Checklist

- ☐ My essay has an effective beginning, middle and end.
- ☐ My essay flows smoothly from one idea to another.
- ☐ My essay contains a strong controlling idea that stays on topic.
- ☐ My essay includes specific and relevant details, reasons and/or examples.
- ☐ My essay uses precise and vivid language.
- ☐ My essay contains sentences that are clear and varied in structure.
- ☐ My essay includes correct grammar, usage, punctuation, capitalization and spelling.
- ☐ My essay effectively blends at least two genres of writing (choose from narrative, argumentative and/or expository).
- ☐ My essay integrates material from both sources.