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**T**he scenes can be recalled with a few words or musical notes: the Conestoga wagon train trekking steadily west to the land of milk and honey; the “surrey with the fringe on top,” with a matched team of dappled horses taking the family to church, under gray oaks draped in Spanish moss; Jesse James making a getaway on his speedy pony; or the family farmer, patiently plowing the fields, working in partnership with his beloved horses or mules.

Whatever the image from America’s rural history, the horse is there. Recalling the nation’s rural transportation past without including the horse is difficult.

The image is distant and nostalgic. The Jeffersonian ideal of the United States as a society of small, independent farmers resonates today, more than two centuries later. Yet the United States in the first decade of the 21st century bears little resemblance to the Jeffersonian ideal. Modern Americans move through urban and suburban landscapes, working in a global marketplace, enjoying speed, convenience, and the world’s resources.

Cars, trucks, and sport utility vehicles have replaced horses, carrying Americans faster and farther. Sometimes, in a nostalgic moment, 21st century Americans imagine how “organic” or simpler it would be to travel in a horse and buggy, but then,

## The Trip to Town

### Rural Transportation Patterns and Developments Since 1900

PETER SCHAUER

after riding around a mall parking lot a few times at Christmas, they motor off to the next mall, glad that the horse and buggy are antique.

#### Automobile’s Allure

The differences between the trip to the mall and the buggy ride provide insight into why farmers were interested in owning a car. Although their horses may have been beloved, farmers found a powerful allure in a machine that required much less immediate care, could travel long distances quickly and without rest, and could carry heavy loads without complaint.

Cars were not only practical but modern and sophisticated, the mark of success and of a cutting-edge sensibility. Cars also helped relieve the loneliness and isolation of farm families living outside of towns. Trips to town had been rare but became commonplace as the cars of dozens of manufacturers jolted across wagon ruts and through the mud.

The farm’s truck also got jolted and stuck in the muddy wagon ruts, carrying wheat or hogs or apples to pay for the family car and the farm truck, for the farm, and for the weekly trip to town. Farmers of the late 19th and early 20th century knew they were not self-sufficient but depended on getting produce to market. Consequently, interest in farm-to-market roads was high—rural communities and counties often had to wait while urban roads were being paved first. Some states are still committed to adequate farm-to-market roads, which some groups define as four-lane, divided highways.

Olds Motor Works ad promotes the car as an alternative to the horse, 1901.



## Interstate Transformations

Rural areas took up the call for roads when the federal government and state departments of transportation—then commonly called highway departments—began building the Interstate system. Groundbreaking was held in 1956 for the first segment of the National Interstate and Defense Highway in what was then relatively rural eastern Missouri, near St. Charles. Another early segment, from Boonville to Columbia, Missouri, was built in assuredly rural Cooper County.

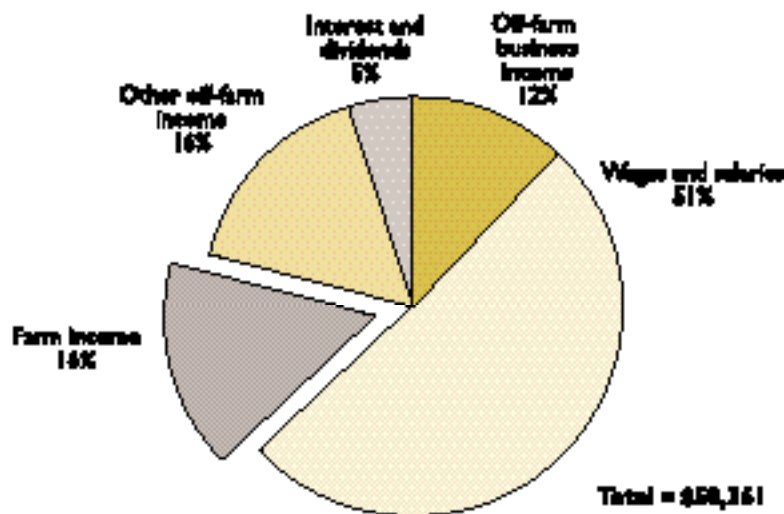
Interstates accelerated the transformation of the family farm. Farmers and family members could travel on the Interstate to jobs that supported the farm, instead of driving on two-lane roads to support the farm by marketing the produce. National statistics indicate that 84 percent of all farm income now comes from off-farm sources (Figure 1). The horse has moved to a life of leisure while farmers work long hours away from the farm and then more hours on the farm, often at night.

## Farmers and Automobiles

The poem on page 7 gives an idea of the requirements for maintaining a living creature as a mode of transportation. Care of a horse required thoughtfulness and a considerable amount of daily work. The work involved in early automobiles, however, was concentrated in pulses of activity:

If Mr. Smith's car is one of the high, hideous, but efficient Model T Fords of the day, let us watch him for a minute. He climbs in by the right-hand door (for there is no left-hand door by the front seat), reaches over to the wheel, and sets the spark and throttle levers in a position like that of the hands of a clock at 10 minutes to 3. Then, unless he has paid extra for a self-starter, he gets out to crank. Seizing the crank in his right hand carefully (for a friend of his once broke his arm cranking), he slips his left forefinger through a loop of wire that controls the choke. He pulls the loop of wire, he revolves the crank mightily, and as the engine at last roars, he leaps to the trembling running board, leans in, and moves the spark and throttle to 25 minutes of 2. Perhaps he reaches the throttle before the engine falters into silence, but if it is a cold morning, perhaps he does not. (1)

Despite such difficulties, farmers—along with millions of other Americans—chose the automobile over the horse. In 1885, only four automobiles were regis-



**FIGURE 1** Sources of farm income, 1934.

Source: Economic Research Service, U.S. Department of Agriculture

tered in the United States, but by 1915, 2.5 million vehicles were registered, and by 1929, 26.5 million (2).

Boonville, Missouri, saw its first motor car in 1901. Ferd Arn, a sporting goods merchant specializing in guns and bicycles, bought a Murray “one lungers,” a single-cylinder, wire-wheeled, tiller-steered model. Arn displayed the vehicle—nicknamed the “Devil Buggy”—at local fairs and cruised the back roads of Cooper County, frightening farmers’ horses (3).

### Tapping the Market

The horses would have to get used to the devil buggies, for as car manufacturing techniques improved and new models were offered, the demand for cars increased and sales methods grew more sophisticated. To tap a mass market, manufacturers developed a financing system, which remains largely

Oldsmobile ad from 1902 contrasts the hassles of managing a horse with the smart ease and elegance of the automobile.





Illustration from a 1935 Gulf Refining Company ad, depicting the plight of a 1901 automobilist: "Gasoline? Mister, there's not a drop for miles."



Advertisement circa 1917 illustrates the need for farm tractors, with soldiers (and farm horses) marching off to World War I, leaving the elderly and women to ensure the nation's food supply.

unchanged: "By 1925 over two-thirds of the new cars purchased each year were bought on credit" (2).

The advertising industry also played a part in convincing people that the days of the horse were over. Oldsmobile ran an ad in 1901 under the headline, "The Passing of the Horse": "The silent horsepower of this runabout is measurable, dependable, and spontaneous. The horsepower generated by supplies of hay and oats is variable, uncertain, and irresponsive. There is nothing to watch but the road when you drive the Oldsmobile, the best thing on wheels" (4).

The next year's ad was more boastful, claiming that "nature made a mistake in giving the horse brains. Science did better and made the Oldsmobile mechanically perfect, presupposing brains in its owner." The illustration showed one man trying to catch his uncooperative horse, while in another panel, a smug-looking couple whirled by in their Oldsmobile (4). Well aware of the personalities of horses and mules, farmers could have discounted these reasons to buy cars.



Meanwhile, networks of gasoline filling stations developed to meet the demand of cutting-edge travelers. According to a 1935 advertisement, "In 1901...motoring was a sport that called for bold spirits and stout legs. If a driver ran out of gasoline on the road,...the only source was the 'garage' of the period, often a livery stable [that]...serviced both horses and horseless carriages. Gasoline was a precious fuel, doled out from a barrel that rested on the stable rafters." The ad noted that "gasoline filling stations have become as numerous as the horse troughs of a more leisurely era."

Farmers wanted to modernize farm operations as much as possible to produce more and become more efficient in a time of declining farm prices. The Roaring Twenties did not swing well for farmers, who fell further and further behind as prices plummeted from World War I heights (1).

### **Improving Quality of Life**

Moreover, farmers already were acquainted with the advantages of mechanical equipment. Cyrus McCormick had patented the horse-drawn Virginia Reaper in 1834 and "was among the first to offer... direct credit for buying his machinery," allowing American farmers to "improve the quality of their lives and create larger, more profitable farms" (5). Manufacturers of steam-powered and then gasoline- and diesel-powered farm equipment filled the marketplace in the late 19th and early 20th centuries as farmers learned the advantages of mechanization and buying on credit.

Farmers read advertisements and articles about the latest innovations in the many magazines and newspapers devoted to agriculture (5). A 1910 article in *The Breeder's Gazette* reported that the progress of many agricultural innovations, especially in traction and mechanized plowing, had spread "contrary to the usual order of things,...making an eastward progress across the continent...from the limitless prairie field of the bonanza farm to the restricted fenced acreage of the diversified farm" (6).

An advertisement for Minneapolis-Moline tractors stated that "your standard of living has increased in direct proportion to the extent to which you have mechanized, and this is true the world over" (5). To capture both the farm power market and the automobile market, Minneapolis-Moline offered the "Comfortactor," designed to pull a three- to four-bottom plow and travel 40 mph on the highway (5).

But perhaps the most salient reason to mechanize was World War I. The "boys" went to the front and took the farm horses with them: "The military leadership...didn't consider trucks reliable and decided to use only horses to move their implements

## **The Horse's Prayer\***

Feed me, water me, and care for me,  
And when the day's work is done,  
Provide me with a clean shelter, a clean dry bed,  
And a stall wide enough for me to lie down in comfort.  
Be always gentle with me, and talk to me;  
Your voice often means more to me than the reins.  
Pat me sometimes that I may serve you  
The more gladly and learn to love thee.  
Do not jerk the reins,  
And do not whip me when going uphill.  
Never strike, beat, or kick me  
When I do not understand what you mean,  
But give me a chance to understand you.  
Watch me, and if I fail to do your bidding,  
See if something is wrong  
With my harness, or my feet.  
Don't draw the straps too tight.  
Give me freedom to move my head.  
If you insist on me wearing blinkers  
To keep me from looking around, at least  
See to it that they do not press against my eyes.  
Don't make my load too heavy,  
And don't leave me tied up in the rain.  
Have me well shod,  
Examine my teeth when I do not eat—  
I may have an ulcerated tooth—  
And that, you know, is painful enough.  
Do not tie my head in an unnatural position,  
Or take away my best defense against flies  
By cutting off my tail.  
I cannot tell you when I'm thirsty  
So please give me pure cold water frequently.  
Do all you can to protect me from the sun  
And throw a cover over me  
When I am standing out in the cold.  
Don't force an ice-cold bit into my mouth,  
But warm it first  
In some warm water, or in your hands.  
I always try to do cheerfully  
The work you require of me.  
And day and night  
I stand for hours waiting for you.  
And finally, my master,  
When my useful strength is gone,  
Do not turn me out to starve or freeze,  
Or sell me to a cruel owner  
To be slowly tortured and starved to death.  
But do thou, my master, take my life  
In the kindest way.  
And your God will reward you here and hereafter.  
You may not think me irreverent  
If I ask you this in the name of  
Him who was born in a stable.  
—A. E. Fisher

\*From Keegan, T. *The Heavy Horse: Its Harness and Harness Decoration*. A. S. Barnes and Company, New York, 1973.



From Paige-Detroit Motor Car Company brochure: Paige Phaeton climbs Uniontown Mountain, Pennsylvania, reaching a speed of 30 mph at the summit.

A farmer hitches a team of horses to rescue a car stuck in the mud on a rural road, circa 1920.



PHOTO: TEXAS DEPARTMENT OF TRANSPORTATION

more farm products in a time of falling prices, a shortage of horses, and the simple appeal of the new and modern all converged, and rural people readily loved and quickly adopted the automobile. The next need was for a road to drive on.

### Farm-to-Market Roads

Another familiar scene is the old photograph of a bemused farmer with a team of horses, pulling a car out of a mud hole in the road. The rural road system was not systematic. Typically, farmers and neighbors would patch together a passable route to the nearest town.

Some thought this was a good way to build a road and save money. In a February 2, 1895, letter to the editor of *Indiana Farmer*, a resident of Hancock County, Indiana, proposed that the county could supply the gravel, and people living along the road could spread the gravel on the roadway: "They can thus make a road in two or three years and be out no money, saving the [county] expenses" (7).

Kimble County, Texas, presents a case study of rural conditions in the early 20th century: "[In] 1917, the trail to Sonora, the only route from Junction to the west, had washed out, becoming, as one chronicler put it, a 'quagmire' so 'hopeless that even a single horse had difficulty getting through.'... Junction's citizens organized a work party along the lines of a barn-raising, with every man bringing his own pick and shovel" (8).

Yet in 1918, despite poverty and isolation, with no paved roads, nor "any semblance of a system of roads [connecting] to the outside world," Kimble County had 200 motor vehicles (8). The county's opinion leaders "recognized that Junction and Kimble County had reached an important milestone; that it either must go forward or be lost in the shuffle of progress. Their only hope was to give the county some modern roads and to provide access to the markets of the state. They decided to pass a \$150,000 bond issue to finance road construction" (8). In two years, a network of roads covered the county.

### Railroad Efforts

Railroads were an important ally in rural areas' efforts to develop roads. Railroads were interested in expanding the system of roads to link towns to cities and to serve as feeder routes, bringing rural produce to market and returning manufactured products to the farm. Railroads set the pattern followed by the car and road:

Before the proliferation of railroad lines in 1900, westerners outside urban centers usually made only one or two yearly trips to a general store in

the nearest town. There they would purchase goods in large quantities, often from a limited selection. But as the railroads introduced a greater variety of goods, shopkeepers established a larger number of specialty stores in towns and cities that served as points of distribution. This development, in addition to increasing ease of transportation, led ranchers to make more frequent trips to town, bringing them into closer contact with...urban life. (9)

Southern Pacific in California and other railroads supported the good roads campaign. Encouraged by the California State Automobile Association (formed in 1900) and by other boosters, the California legislature authorized bond issues in 1909 for the construction of a paved state highway system. By the late 1920s, “paved roads and repair shops and filling stations had become so plentiful that the motorist might sally forth for the day without fear of being stuck in a mudhole, or stranded without benefit of gasoline, or crippled by a dead spark plug” (1).

### **Touring the Country**

Car manufacturers produced elaborate advertising brochures on how to go on an automobile vacation, reassuring tourists that everything would be all right. The Paige and Jewett Lines, manufacturers of automobiles, produced a brochure proclaiming that “Beautiful Historical New England—The Cool Lake Country—Sunny California—Every Summer or Winter Playground Is Now Within Your Reach.” The company’s trip consultant, Brownie, “after driving a Jewett 8,000 miles over all kinds of Wisconsin roads...is qualified to give reliable advice on what you may expect of Jewett performance and Paige-Jewett service.”

Vacation trips of 500 hundred miles in two days were no longer dreams but had become reality. Less than 50 years later, 500 miles in one day would be possible on an Interstate.

### **Road Building Boom**

In the early 1900s, long-delayed road and bridge projects that had failed for lack of financing were proposed again under the promise of the new, automobile-centered prosperity. Groups in Boonville, for example, had tried since 1896 to finance the construction of a bridge across the Missouri River, with no success, but “with the advent of automobiles after the turn of the century...a state and national road building movement began, including the formation of the National Old Trails Association, which was promoting a transcontinental highway” (3).



Santa Fe Railway ad promoting tourism by train and automobile, from *St. Nicholas* magazine, December 1917.

The proposed route (now U.S. Highway 40) would link St. Louis and Kansas City, crossing the Missouri River at Boonville. Plans were for a private corporation to raise funds and build a toll bridge, but the plans changed when boosters learned that state and federal legislation authorizing road construction barred tolls on roads receiving federal money.

As a result, half the money was raised from county bonds and from stock subscribers in the Old Trails Bridge Company and the other half was federal. The bridge was completed in 1924, with a day-long celebration, featuring a parade, poems, and almost 4,000 cars driving over the bridge (3). The local newspaper’s “Souvenir Bridge Number” gives a hint of the fervor:

“Brownie,” who drove 8,000 miles on Wisconsin roads and provided “Tour Tips” for Paige and Jewett.





# MOTOR TRAVEL



Rural motoring graphic from *Motor Travel: A Magazine for Automobile Owners*, February 1926.

Yes, bridge, we believe in you. You symbolize strength and epitomize progress. You are emblematic of enterprise. Thus far our acme of achievement, you are to continue our greatest urge to action. "Forward," not finished, is our watchword.

On this Independence Day 1924, you, great, free highway Bridge, are dedicated to the service of all the people. For all time you shall stand and proclaim: "Where there is an enduring monument, there is also a builder's dream." (3)

But before the end of the 20th century, highway builders detonated the Boonville Bridge and replaced the aged metal structure with a concrete span.

The residents of Boonville were not the only ones who thought their highway project would endure for all time. "Mississippi Completes Her New Highways" was the title of an article in the December-January 1939 issue of *The Highway Traveler*, reporting that "construction work is now in the latter stages on the through highways in a \$90,000,000 super-transportation network. In less than four years...Mississippi has replaced dirt and gravel with concrete and asphalt, building for motorists and bus passengers a thoroughly modern set of speedways, arrow-straight and table-smooth" (10). But Mississippi and other states were far from completing "super-transportation networks."

Again, convergent factors were leading to the next major phase in rural transportation, a road system suitable for automobiles: the dream of the first transcontinental highway, the railroads' need to supply manufactured products to a more dispersed population, and the urge to travel more miles faster. These factors related not only to the physical advantages of the new technology but also to the urge to disperse to every habitable corner as fast as possible and helped to create the Interstate system.

## Farms and Interstates

The links between the farm and the new Interstate system had roots in the early decades of the 20th century:

Like many another American machine developers, today's road builders got their start down on the farm. Shortly after the turn of the century, a young man named Benjamin Holt began producing the first crawler (endless chain) tractors as a prime mover for farm equipment. In the road-building boom that followed the growth of the auto industry, the crawler tractor moved off the farm and onto the highway. (11)

Early machines—including the early cars and farm machinery—were considered unreliable and were sometimes left to rust on the side of the road when broken, but improvements came rapidly. Horse and mule teams became obsolete, despite sabotage: "Rival muleskinners added to the tractor's troubles by loosening its bolts at night, pouring sugar into the gas tanks and sand into the gearboxes. Then Holt and other companies thought of attaching a metal blade to the tractor's nose, and the versatile bulldozer was born (a salesman is supposed to have said: 'That'll bulldoze 'em!')" (11).

In the 1950s, farm equipment manufacturers, faced with declining sales, expanded into road build-



Cover of booklet celebrating the dedication of the Boonville-Rochepport-Columbia, Missouri, section of Interstate 70, October 1960.

ing, assuring themselves a long, healthy future—not only were the Interstates under construction, but many of the earlier roads needed extensive repair. The National System of Interstate and Defense Highways brought rural and urban areas closer by easing travel. The system was so effective that today, truly rural areas mostly can be found only far from the Interstates.

### Extending Development

Until the late 1990s, the easternmost undeveloped yet developable interchange—clover-leaf and decked interchanges are not developable—was Exit 111 on Interstate 70, just west of the Missouri River. All exits east of the river had some commercial or other development. The east-west Interstate system does not appear truly rural—that is, without development—until west of Kansas City. All Interstates are gaining commercial or other development contiguous to their full length.

When the Interstates were being built, most people were not concerned about development, unless their towns were being bypassed or they lived in the path of construction. The highway's convenience meant inconvenience for some: "A classic case of inconvenience occurred when a new road cut a farmer's privy from his house, forcing him either to build a new one or make an 8-mile trip and pay a toll. He built a new one" (11). The story may be amusing, but the experience of neighborhoods and farms divided by Interstates is not.

In October 1960 the Missouri State Highway Commission opened the Boonville-Rochepot-Columbia section of Interstate 70. The 35-mile segment was then the state's longest continuous stretch of Interstate. The Commission published a booklet, "Interstate 70 in Central Missouri: A Link Is Forged in a Chain of Progress," at the dedication, listing various statistics, including the construction cost, \$14,601,742, and the right-of-way cost, \$1,105,421. The booklet, however, included no poems and no claims of the road being for "all time."

### Drawing Sprawl

The newly opened Interstates were so empty that older automobile drivers in central Missouri reminisce about driving 100 mph down the middle of the two lanes, past the small towns that had depended on the old highways and on the trade patterns that had formed. Towns now worried about losing the tourist business, not the farm business.

By the 1950s the Jeffersonian ideal was only a glimmer. For towns on the Old Trail Highways, the dollars spent by people driving through were most important. When Boonville citizens protested in

1955 that the new National Defense Highway would pass 4 miles to the south, "the Highway Commission contended that abandoning [the] original plan in favor of [Boonville's], which would bring the bypass about three miles closer to the town, would cost the state...\$300,000, and [was] not convinced that... would alleviate the trade problem" (3).

The highway was built as planned, businesses closed, and the town sprawled out toward the Interstate. Rural residents once had built roads to bring themselves and their goods to town, but now people were building towns to reach the roads.

### Costs of Progress

Rural road development has followed a general progression from no road to barn-raising road, county road, booster road, state highway, and the climax—the federal Interstate. In retrospect, the progression seems inevitable.

To many, the sequence represents progress, upward mobility, prosperity, and a better life with less drudgery and more leisure. Farmers knew that the latest technologies, mechanization, the automobile, and better roads could lead to a better life.

Now, however, the benefits seem less certain. The costs of a rural society built around the car are known: the isolation of the elderly, youth, and low-income citizens who have limited or no access to the automobile; and a land use pattern that demands the use of one mode of travel above all others. These costs were unimagined 100 years ago, when the focus was on the hope and the glory of progress.

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