Dhananjayarao Gadgil Library GIPE-PUNE-045926

1 22

The HIGHWAY The MOTOR VEHICLE and The COMMUNITY

A study revealing how good roads and automotive equipment meet the transportation needs of communities and help railroads to abandon unprofitable lines

NATIONAL HIGHWAY USERS CONFERENCE National Press Building WASHINGTON, D. C.

CONTENTS

	Page
Foreword	3
Introduction	5
In Agricultural Nebraska	13
California's Ocean Shore	
THE WEST RIVER VALLEY OF VERMONT	
IN THE TENNESSEE RIVER VALLEY	35
THE UINTAH BASIN OF UTAH	39
IN COASTAL NORTH CAROLINA	
IN THE GREAT PLAINS OF COLORADO	51
Ozark Mountain Country of Arkansas	55
CALIFORNIA'S MOTHER LODE COUNTRY	61
Along West Virginia's Highway No. 14	67
A TRANSPORTATION CYCLE IN OREGON	73
Summary	

FOREWORD

THIS period evidently can be described as "The Highway Era" in the United States. By so describing it, the thought is not expressed that one method of transportation will, or ever can, completely supply the transportation necessities of the nation. But it is timely to present a study which makes an effort to show that the highway fits into the transportation plan of the nation, and, in so doing, aids in supplying communities with their transportation requirements.

When economic and social factors are changing progressively, and, in some cases, rapidly, it is well to analyze conditions sanely, and not become frightened for fear some present methods and facilities will wholly disappear to be supplanted by other present or new forms of transport.

This study is presented as a contribution to the solution of the transportation problem of the present day. It is intended to be an aid in solving the railroad problem as much as a demonstration of the ability of the highway and the motor vehicle to supply the needed transportation in a community.

CHESTER H. GRAY, Director, National Highway Users Conference

December 1, 1938.

The material in this study was prepared by Harold Gray and Myles W. English, staff members of the National Highway Users Conference, after making personal investigations in the field and checking township, county, state and federal records.

CONTENTS

	Page
Foreword	
INTRODUCTION	5
In Agricultural Nebraska	
California's Ocean Shore	
The West River Valley of Vermont	
IN THE TENNESSEE RIVER VALLEY	
The Uintah Basin of Utah	
IN COASTAL NORTH CAROLINA	
In The Great Plains of Colorado	
Ozark Mountain Country of Arkansas	
CALIFORNIA'S MOTHER LODE COUNTRY	
Along West Virginia's Highway No. 14	67
A TRANSPORTATION CYCLE IN OREGON	
SUMMARY	

INTRODUCTION

A NOTHER great transition in transportation methods is being witnessed in our time. To find a parallel, the pages of transport history must be turned back to chronicles of changes following the advent of the railroads more than a hundred years ago.

In those days, well-established transportation agencies, such as the canal, the stagecoach, the wagon train, were pushed gradually into the background. Ingenuity and progress had provided transportation facilities more to the liking of the public. In the Twentieth Century the public will be pleased just as it was in the Nineteenth.

Since the development of all-weather roads and efficient and economical motor vehicles, making as they do for a fast, flexible and convenient service, people have turned more and more to the highways for their transportation needs. This has been especially true in many rural areas where branch line railroads were unable or failed to give the superior transportation facilities offered by the newer medium.

What is happening in these areas is what always happens when there is progress: The newer and better is replacing the older and less desirable. Rail transportation that is unsatisfactory to the public and unprofitable to the company is giving way to modern highway transportation.

Official Permission Required

The Interstate Commerce Commission must give its permission before a railroad may abandon a line or portion thereof, no matter how short. In the past twenty years the Commission has granted 1,350 individual applications to discontinue service on some 22,000 miles of rail lines. During the year ended October 31, 1938, it approved 118 such applications, involving 1,919 miles, which was nearly double the yearly average for the two decades. As of that date there were pending 60 applications to close 1,277 additional miles.

A considerable number of the abandonments were of special purpose lines, such as those serving a mine or a lumber camp, the purpose of which no longer exists; a few others were of lines built into new territories in anticipation of business that never came; but many of them were of once profitable general purpose lines that had ceased to be profitable to the railroad or indispensable to the life of the community.

Too many branch lines failed to develop revenue traffic in volume sufficient to meet promotion and operating costs. Other lines, profitable in their earlier years, lost much of their traffic as the result of changed conditions, exhausted natural resources and through competition.

Unquestionably, there is an oversupply of transportation today in many territories. Nor is this duplication of facilities confined entirely to the growth of other agencies, such as highways, waterways and aviation. Thousands of miles of railroads have been built paralleling existing lines, thus dividing the business to the disadvantage of both.

Prior to the advent of good roads and improved highway transportation, the Interstate Commerce Commission granted certificates authorizing abandonments with extreme reluctance in those cases where alternative transportation was not available to the communities to be affected. Even where continued operations would be carried on at a loss, the Commission considered that the railroad company had assumed a responsibility to the communities along its line.

Towns Closer to Markets

The situation has now changed materially. Towns that were entirely dependent upon the railroad for contact with the outside world need no longer rely on this single form of transportation for their continued existence. All-weather highways have brought them within a few hours of metropolitan markets and large railroad centers. The railroads themselves can now go before the Commission and, in addition to proving the unprofitable operations of their branch lines, they can support their petitions with showings of other adequate transportation and communication systems that will not leave the communities stranded.

The records of the last few years show the authorization of hundreds of abandonments that, beyond doubt, would not have been permitted by the Commission in the absence of adequate alternative transportation service.

The Commission acts as a public tribunal when a railway seeks to abandon a line that no longer is profitable. This agency not only makes a thorough investigation, but, on request of the interested parties holds public hearings. It stands on guard to see that community interests are protected. It permits a proposed abandonment only when there is proof that "public convenience and necessity" will not suffer from such action. It is obvious, therefore, that great reliance is placed upon the ability of highway transportation to provide adequate facilities in substitution for those to be abandoned.

When abandonment of a rail line is proposed, residents of the affected communities usually rise up in arms against it, forming committees, circulating petitions and protesting in other ways. Thinking in terms of the disadvantage suffered by railless towns in the "horse and buggy" days, they fear that calamity will befall them if the railroad is lost. Apparently they do not realize the growth and dependability of highway transportation. They would retain two transport mediums even though there is not enough traffic to support more than one. As a matter of civic pride, they would retain the unprofitable rail line which they themselves have come to patronize less and less.

Ironic Evidence Presented

Frequently, abandonment hearings present ironic evidence of this. Protesting witnesses, as well as the railroad representatives themselves travel by highway instead of by railroad.

Rail service is never at its best on branch lines. Where local economic conditions and lack of patronage recommend the abandonment of a line, it will be found invariably that the service to be abandoned has already been reduced and curtailed to a minimum. Usually the railroad is no longer justified in maintaining facilities that are adequate, or a time schedule of sufficient frequency to meet the needs even of the reduced patronage.

Too often the picture is one of a complete circle. The business is not sufficient to warrant better train service. As a result, local patronage is lost to the more flexible service of highway transport. This produces further reductions in the revenue of the branch line, involving a further curtailment in service, and the resulting loss of even more local patronage.

Experience following railroad abandonments discloses that the fears of protesting citizens were largely groundless. Departure of the railroad leaves no adverse economic or social effect on the communities once served. Time after time towns are observed to have increased in population and enjoyed better business, larger bank deposits and superior transportation service. These improvements in certain localities are all the more impressive, coming, as they did, in the period of general economic depression.

Storekeepers in towns, villages and rural areas now are freed from the necessity of keeping their funds tied up in large stocks of goods. Depressed business conditions in general have demanded smaller inventories. Expeditious, flexible and frequent truck service lends itself to this kind of merchandising. Small shipments rather than carload lots are the mode. Smaller stocks permit and encourage the carrying of a greater variety of items as a potent invitation to trade. Another offset to the loss of rail service is the fact that merchants now often economize by bargaining for their stock when in the city and hauling it back in their own car or truck.

Vital Aid to Farmers

Farmers also find that loss of rail service is not a handicap to them. Being able on the highway to move their produce, live stock and even grain in less than carload lots, they can gear their shipments to the rapid fluctuations of the market. Let a good price be announced over the radio and they are able immediately to get their products to market. Use of the highways avoids the necessity of cars ordered in advance, mass shipments, delays in loading and much of the uncertainty of prices at the marketing centers.

Even where there is rail service there are times when, but for the highways, farmers would be unable to market their perishable crops at any price. This fact was brought sharply to public attention in the summer of 1938 by the authorities of Colorado and Arkansas letting down border barriers against non-resident truck operators so that they might enter those states to buy from the growers fruits and vegetables for which there was no local market.

No longer is a railroad considered essential in mining. For example, in Illinois alone 1,056 coal mines are not served by railroads. In recent years many manufacturing and other industries have been established on improved highways with no thought of a need of rail transportation.

Seashore resorts once could not exist without rail or boat connections. It has taken the highway and automobile to bring about their highest development. Many well-known beaches are accessible only by highway, such as: Jones Beach, Long Island; Beach Haven, New Jersey; Carolina Beach, North Carolina; Sea Island Beach, Georgia; Jacksonville Beach, Florida; and most of the Oregon beaches. In Southern Maryland nearly all of the shores of Chesapeake Bay and the Potomac River are lined with resorts, but prior to good roads none existed except where there were railroads. Now most of the railroads have discontinued service.

Motor vehicles have contributed so much to small town culture and standards of living that few residents of such places would think of restricting them in order to retain railroad service. By means of the school bus, rural and small town learning has been advanced greatly. Rural localities have, in a way of speaking, been moved to the edge of the city. Urban educational and recreational advantages are readily available to far-distant country residents by the flexibility of automobile traffic.

Approximately forty per cent of the Nation's 122,473 communities have no railroads and are solely dependent upon the highway for their transportation needs.

Recognizing the great responsibility that rests on highway transportation for the well-being of such communities, and also the lack of dependable information as to how that responsibility has been met, the National Highway Users Conference has made detailed investigations of several widely scattered areas that have only motor transportation. With a single exception, those selected for study formerly had rail service. The contribution of highway transportation to community welfare, employment and taxation has been compared with that of the abandoned railway.

Facts Obtained Directly

Experienced investigators were sent into the communities to gather information first hand. State, county and township records were checked. State and local officials, shippers, leading citizens, bankers, merchants, farmers and chamber of commerce secretaries were interviewed in a sort of a systematized sampling to determine if highway transport has proved adequate after the rails were removed. The investigators examined records of state public utility commissions and the Interstate Commerce Commission to obtain statistics and other information on the former railroad and present highway for-hire carriers. Annual reports of the railways and I. C. C. abandonment proceedings were examined. Old and new tariffs and fares were supplied by the carriers themselves or the regulatory commissions.

Railroad tax figures were obtained from both county and Interstate Commerce Commission records. Truck and bus line taxes were obtained in interviews with the operators. Auto registrations were secured from state motor vehicle records when available, and when not, were computed from population. Taxes on garages, filling stations and roadside establishments were obtained from county tax rolls after a field survey of such enterprises. These, for the purposes of comparison in this study, were assumed to correspond to railroad roundhouses, machine shops, water tanks and coal chutes.

The taxes obtained from gasoline and lubricating oil consumed in traffic on the highways that paralleled the abandoned rail lines were computed from the annual vehicle miles on those stretches of road as revealed by the state traffic counts. By taking the average of several reliable tests and estimates, it was assumed that passenger cars averaged 14 and trucks 8.4 miles to the gallon of gas, and the oil consumption was set at 3.57 quarts for every 1,000 miles traveled. The tax rate was applied to total consumption, as determined from vehicle miles, to obtain the total gas and oil taxes paid.

Fuel Consumption Balances

It might be argued that a considerable portion of the gasoline and oil tax collected locally is on fuel that is actually consumed outside the locality under consideration. This, of course, is true. On the other hand, it is only fair to assume that a comparable amount of fuel will be consumed within the locality, the tax on which has been collected elsewhere. Experience indicates that the one should offset the other.

Employment figures were secured from both local interviews and official records. In every study, railroad section hands were included, but highway maintenance men were not.

When different sources of information gave different figures on railroad taxes or fares, those most favorable to railroads were used to avoid any possible misrepresentation. Every statement and figure in the following individual studies is based upon statistics, interview notes and records which were collected in the field by the investigators and are being retained in the Conference files at Washington, D. C. A double check on accuracy was made by sending copies of the reports for criticism to informed persons residing in the communities studied.

The communities finally selected for investigation were chosen after careful inquiry. The purpose was to select only those that are representative of all sections of the country and truly reflect the effects on industry, general farming, live stock, seashore resort, irrigation, fruit and vegetable production, suburban development, mining, lumbering and recreational interests, both for passengers and freight. One project was selected because of its exclusive agricultural location; others have diverse products and interests. No community having rail facilities within fifteen miles of the highway being studied was included. Communities on strictly special purpose railways were eliminated. Electric railroad abandonments were not considered, as a study of the interurban-highway transition is not germane to this inquiry.

These qualifications and restrictions as to the location and nature of the projects to be studied required a severe process of elimination in order to reduce a rather large number of possible survey projects to a much lesser number which, when studied, would be truly representative and national in scope.

Conclusions Show Uniformity

The uniform conclusions arrived at from summarizing and averaging the separate studies are as follows:

(1)—Because of family cars, trucks and buses, rubber tires and good roads, towns without railroads are no longer at a transportation disadvantage.

(2)—If a community has a hard-surfaced highway, it is not injured by the abandonment of a short-line or branch line railroad.

(3)-After a railroad is abandoned, highway transportation-

A—Employs more people

B—Pays more total taxes

C-Offers more flexible, convenient and frequent service

D—Provides faster transportation

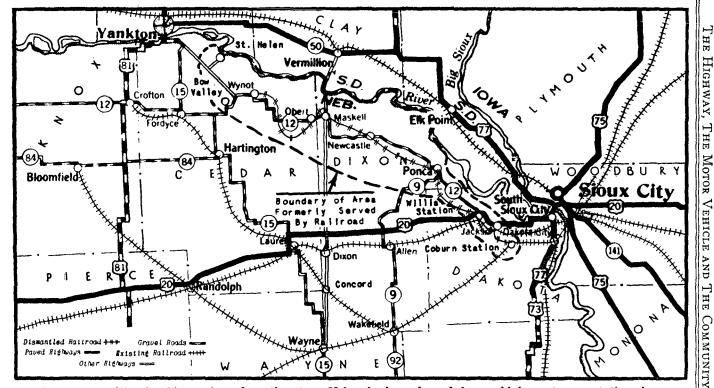
E-Continues and accelerates social developments.

(4)—The railroad is seldom missed except for reasons of sentiment or civic pride.

(5)—Due to changed methods of production, marketing and shipping, the railroad would not be used much if it were restored to such communities as those studied in this survey, which are representative of the thousands of towns that have lost their railways.

(6)—The disclosure that communities continue to thrive when served only by highway transportation is a contribution to the solution of the railroad problem of the day in that public opinion and regulatory commissions should more readily allow rail operations to cease on unprofitable mileages.

The individual community studies that follow will reveal how and why these conclusions were reached.



Five communities in this section of northeastern Nebraska have depended upon highway transportation since the Wynot branch of the Chicago, St. Paul, Minneapolis and Omaha was abandoned in 1933.

12

SYNOPSIS

RAIL LINE ABANDONED: Chicago, St. Paul, Minneapolis and Omaha Railway Company; 45.39 miles in northeastern Nebraska; portion from Coburn to Ponca constructed in 1877, extended to Newcastle in 1893 and Wynot in 1907; abandonment permitted April 19, 1933.

COMMUNITIES LOSING RAIL SERVICE: Ponca, Newcastle, Maskell, Obert and Wynot. (Also Jackson, still served by Chicago, Burlington and Quincy Railroad.)

SOCIAL AND ECONOMIC EFFECTS: A paralleling highway, promptly improved after removal of the railroad, made available a better and more suitable transportation service at lower cost for an area devoted entirely to agriculture. The new transport medium has substantially increased employment and contributes a considerably larger amount of taxes.

 $T^{\rm HE}$ Chicago, St. Paul, Minneapolis and Omaha Railway was authorized in February, 1933, to close its 45-mile Wynot Branch extending from near South Sioux City to Wynot, Nebraska.

At that time, the people involved were fearful of their transportation future, but an investigation of the area by the National Highway Users Conference reveals that their fears were unfounded and that they now get along splendidly with only highway transportation.

It was found that all the towns except one are growing or holding their own. The new highway and automobiles make for a higher standard of living. Shippers and residents are almost unanimous in saying that highway vehicles give better transportation and mail service and offer lower rates than the railroad provided. Furthermore, highway transportation provides more employment and taxes than did the railroad.

Description of Area

The area once served by the Wynot Branch is highly productive agriculturally. It lies along the south shore of the Missouri River in northeastern Nebraska, partly in the bottom lands, but mainly on the rolling plains. It includes the towns of Jackson, Ponca, Newcastle, Maskell, Obert and Wynot in Dakota, Dixon and Cedar Counties. All the land is farmed and there is no manufacturing or lumbering. Corn, wheat, oats, rye, barley and live stock are the main products grown. Sioux City, Iowa, is the marketing, distributing and metropolitan trade center for the area, while the above towns are retail outlets for the farmers.

History of Transportation

Prior to the railroad, freight reached those communities by wagon over the old Sioux City-Niobrara teaming road. The railway was built to Ponca in 1877, Newcastle in 1893, and Wynot in 1907, and put the highway haulers out of business. Since 1933, the highway again has become the sole transportation medium.

Closing of the railroad spurred the State Department of Roads and Irrigation into hard-surfacing Highway No. 12 which paralleled the branch. Prior to that, winter and wet-weather motor travel was hazardous. At present, year-around daily dependable highway service is available, the state having established snow removal facilities.

Inquiry was made into all phases of community life and transportation by the investigator for the purpose of comparing conditions in the railway days with those of the present highway era.

Employment

The railroad formerly had roundhouse, train and section crews, and a station agent living in Wynot. The number of people employed varied from about 40, at the peak, to 15 in 1931. It dropped to six several months before abandonment of the branch in 1933. Wynot now has 15 men employed in garages and filling stations, and 21 working on trucks.

t

The story was similar in the other communities. At Obert, highway transportation gives employment to ten persons, whereas the abandoned railroad employed only one, the station agent. At Maskell the score in favor of the highway was eight to four; at Newcastle 32 to four; at Jackson 14 to six, and at Ponca 80 to one.

Thus at the time of the investigation, highway transportation, not including state and county highway departments supplied eight times as much employment in the whole area as did the abandoned railroad its last year of operation.

The rail employees with high seniority were taken to other points on the system, while those with shorter service remained in these communities and obtained other work.

Service

(A)Passenger:

Present bus service unquestionably is better than the discontinued rail passenger service.

Until 1930, when the service was reduced by half, the railway operated two round trips daily except Sunday from Wynot to Sioux City and return, covering the one-way distance on schedules varying from three to six hours.

In December of that year the trip was reversed, the train running from Sioux City to Wynot each morning and returning in the afternoon, daily except Sunday and making one-way in three hours. This practically killed the passenger traffic, for it was no longer possible to make one-day shopping trips to Sioux City.

The Inter-City Bus Line now goes to Sioux City each morning and returns in the evening, a very desirable schedule. The bus runs from Wynot to Sioux City in two hours. It also goes beyond the terminus of the railway and directly connects the Wynot Branch towns with Hartington and Bloomfield, important trade centers to the west.

COMPARISON OF PASSENGER SERVICE

		Railroa	Bus (1938)			
From Sioux City To:	Running Time (1933) (Minutes)	Fares to Nov. 21, 1932	Fares Nov. 21, 1932 to Closing, Feb., 1933	Running Time (Minutes)	Fares	
Jackson	$70\\85\\100\\130\\150\\160\\180$	\$.74 .88 1.19 1.56 1.82 1.91 2.22	\$.21 .25 .33 .44 .51 .53 .62	20 30 45 70 85 95 120	\$.35 .50 .60 .75 .90 1.00 1.25	

*Railroad line ended at Wynot and bus line continues beyond Wynot through Bow Valley and Hartington to Bloomfield.

The reduced rate during the railroad's last three months, shown in third column, failed to attract many passengers.

(B) Freight:

In the railless towns, 95 per cent of the citizens interviewed said trucks now offer better transportation service than the railway did in its better days. Farmers profit and save time by truck pick-up and delivery service in the field or farmyard. Merchants and townspeople praise the over-day and over-night delivery of goods from Sioux City to their doors. Similar orders of merchandise by rail formerly required from one to three days.

One of the bankers summed it up in this manner: "Trucks and good roads give these small towns all the transportation advantages of a large city. Highways and automobiles have figuratively moved these rural villages to the edge of the city, because bread, newspapers, ice cream, soft drinks, merchandise and mail are at village doors in the early morning, arriving in two hours from Sioux City, whereas it formerly took from twelve to twenty-four hours by rail."

Truck rates were raised ten per cent recently as a result of the new Nebraska truck regulatory law. Even now, truck rates, which include pick-up and delivery, are lower than were rail rates. Farmers formerly had to pay three-quarters as much on drayage to or from their local village railroad station as they do now on shipments between Sioux City and their doors. When shipping by rail, they had to pay drayage from the station in addition to freight charges or stop farm work and do the hauling from the station themselves, but now one comparatively low payment covers all costs and farming is not interrupted.

From	Railway (1933) ¹		Trucks (1936)		Trucks (1938) ³		Average - Per Cent	
From Sioux City To:	Class 1	Class 4	Class 1	Class 4	Class 1	Class 4		
Jackson ² Willis ² Ponca Newcastle Maskell	41 46 50	20 23 25 28 30	27 28 29 38 41	15 16 18 22 23	30 31 31 42 45	$ \begin{array}{r} 17 \\ 18 \\ 20 \\ 24 \\ 25 \end{array} $	16.1 23.4 28.2 15.4 17.6	
Obert Wynot	55	30 32	41 45	23 24 25	45 45 50	26 28	$16.5 \\ 14.3$	

COMPARISON OF FREIGHT RATES (Class Rates in Cents Per 100 Pounds)

¹ Does not include the emergency charge, then in effect, which increased these rates varying up to about ten per cent. Also, on most shipments, drayage or delivery charges to and from the depot would be additional.

² Also served by the Burlington Railroad.

^a Sioux City District Motor Transport Association No. 3, MF ICC No. 3.

The situation as regards commodity rates is similar. Coal by rail from Sioux City to Wynot was \$1.50 to \$2.00 per ton with an extra 25 to 50 cents delivery charge. Trucks now deliver it for \$2.00.

Drayage on hogs from nearby farms to the Ponca siding was ten cents a 100 pounds, and 14 cents was charged for the rail haul to Sioux City, making the total charge 24 cents. Trucks now haul them from a Ponca Township farm to the Sioux City destination for 13 cents. Farmers paid five cents a bushel to move grain from their farms to the Newcastle elevator, at which point the rail rate started. Now five cents takes it to Sioux City by truck. Merchandise from Sioux City to Newcastle which was 40 cents a 100 pounds by rail is now 27 cents by highway. Packages up to 60 pounds in weight are trucked from Sioux City to Wynot as cheaply as they were drayed from the Wynot depot to the doors of the town.

Transportation would be somewhat higher now on through carload shipments between these towns and far-distant points, such as Chicago or Duluth. At present, through rates are not available on shipments moving partly by highway and partly by rail. For the average farmer, however, savings afforded by trucks on marketing, pick-up and delivery and fast haulage more than make up for the present lack of a through truck-rail rate.

Incoming merchandise once was shipped in car lots, but merchandising methods have been changed in recent years, large inventories no longer being kept. L.C.L. shipments are all that merchants have used since before the rails were pulled up. Trucks give much better service for these smaller shipments.

(C) Mail:

Mail service is far superior by highway. By rail it arrived just once a day from the East at 11 a.m. Star route carriers now bring it by motor vehicle from the East at 7 a.m. and from the West at 4 p.m. One-day return mail is now available. Metropolitan newspapers are at village doors on the day printed, but by rail were often a day late.

Taxes

Loss of tax revenue when the railway was abandoned would have been quite serious if it were not for the fact that the highway and the motor vehicle have provided new and increasingly large tax sources.

Formerly the counties collected most of the transportation taxes, but after the advent of automobiles, the state took to taxing them and returning much of the revenue back to the counties.

During the Wynot Branch's last full year of operation, 1932, it paid \$13,189.96 in taxes. The annual state gasoline tax collected from traffic on the highways that parallel the old railway now totals \$27,052.70, of which \$10,719.35 comes from trucks. The Federal gasoline tax amounts to \$5,510.54 and the Federal oil tax \$230.57. The 2,228 autos and trucks in the contributing territory of the former railroad pay \$9,552.19 in registration fees, of which the 262 trucks pay \$3,844.63. The motor vehicle property tax produces \$6,608.51, trucks paying \$773.20 of that sum. The 65 for-hire motor vehicles of the area pay \$325.00 in special carrier taxes annually. Garages, auto service stations and other motor vehicle businesses contribute \$2,113.44 in property taxes.

To sum up, highway transportation pays \$51,392.95 in taxes in one year as against \$13,189.96 for the railway—four times as much. Furthermore, trucks alone within the former railway's area pay \$17,906.05 in taxes, or \$4,716.09 more than the railroad did.

Community Growth

The closing of the railway caused no decline in towns once served by it. The population of these settlements has remained practically stationary for 30 years. The annual school census reveals that the total population of the three counties involved has declined 6.1 per cent since 1933. However, the portions of those counties that made up the abandoned railway's contributing territory have declined only 4.8 per cent. This loss of population was simply a part of the general exodus from rural areas that prevailed in the prairie states during the several years of drought just ended.

Since the railroad's departure, the volume of business and trade has increased in Ponca, remained the same in the other villages, and fallen off in Wynot and Jackson. Wynot's business decline started in the early 1920's after the highway bridge was built across the Missouri River at Yankton, South Dakota. The drought, depression and grasshopper plague further contributed.

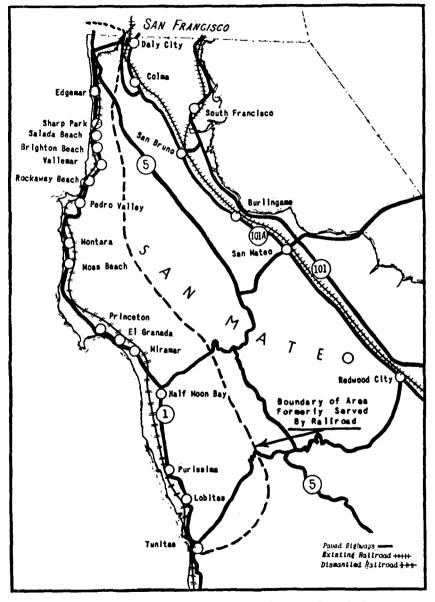
It is significant to note that Jackson, which still has another railroad, has suffered a trade decline and has five empty business buildings, out of a total of twenty, and two empty houses. In contrast, six new dwellings and a bulk gasoline plant have been erected in Ponca since the railroad withdrew, and there are no vacancies in any residential or business structure. A new chain store, chicken hatchery, and State Park have been established at Ponca. Newcastle has no vacancies. Since the railroad was removed, two new filling stations have been erected, and two creambuying stations, two bars, a mortuary and beauty parlor have established business. Maskell has two empty stores but no vacant dwellings, and a new restaurant has started. Obert has but one vacancy, a store. There were two empty stores during the railway's last months. Wynot has three vacant stores out of thirty-five commercial structures and two empty residences—showing fewer vacancies than Jackson, the town with a railroad.

The grain elevator at Ponca is being operated just as is any railside elevator. The Newcastle elevator is still used for grain storage. Other elevators were removed during the cropless years before it was learned that trucks could adequately serve them.

Conclusion

Without attempting to pass judgment upon whether unprofitable branch lines should or should not be abandoned, this study has developed facts showing that the communities involved in this abandonment were more benefited than handicapped, because the newly-developed highway transportation has arisen and is giving them better transportation service at lower cost, providing greater employment and paying more taxes.

It may be assumed that the abandonment of the Wynot line has resulted in the effecting of substantial economies for the Chicago, St. Paul, Minneapolis and Omaha Railway, as it was necessary for the company to prove serious financial losses in its operation of the branch line as a basis for obtaining the authority from the Interstate Commerce Commission to abandon the line.



This coastal region of California, extending southward from San Francisco, where the Ocean Shore Railroad Company's line was abandoned in 1921, has seen dreams of substantial development come true.

SYNOPSIS

RAIL LINE ABANDONED: Ocean Shore Railroad Company; 53.63 miles on coastal California; construction completed in 1909; abandonment permitted June 16, 1921.

COMMUNITIES LOSING RAIL SERVICE: Sharp Park, Rockaway Beach, Montara, Moss Beach, El Granada, Half Moon Bay and Tunitas. (Also San Francisco and Daly City, still served by the Southern Pacific Railroad.)

SOCIAL AND ECONOMIC EFFECTS: When highway transportation replaced the railroad, real estate developments undertaken by rail promoters began to attain the growth promised for them years before. Residents are provided a more convenient transport service at less cost. The new system pays taxes far in excess of those of the railroad and employment is slightly increased.

INDIVIDUAL histories of railroad abandonment cases include few, if any, more interesting and significant sets of facts than those presented in the transportation story of a group of communities on the California Coast.

The story is one having its beginning in promotional activities at the turn of the century which were supposed to result in construction and money-making operation of a new railroad line. It has, as its ending, an outline of present conditions in the area which that railroad, only partly completed and now entirely abandoned, was intended to serve.

Description of Area

That area extends from the south line of San Francisco to Tunitas Creek and from the crest of the Coast Range to the sea. Within it is the principal town of the region—Half Moon Bay—and many suburban developments, seashore resorts and agricultural communities. It is a residential and farming area, with no other important industries.

For those who like to know how the story ends before they read it, let it here be stated that the communities in that region attained their greatest growths after the railroad was abandoned and following construction of a modern highway which utilizes, in part, the roadbed of the ill-fated rail line. Also, the change from one transport method to another made the communities more accessible to each other and to the surrounding territory. Enterprises linked with highway transportation provide more employment and are the source of greater tax payments than any diligent search can reveal to the railroad's credit.

History of Transportation

The area originally had both water transportation and horsedrawn highway transportation; then, from 1909 to 1920, the Ocean Shore Railroad ran the length of it. Since 1920, however, it has been served entirely by highways and motor vehicles. Commercial boat transportation ended just prior to the completion of the railroad. Highway transportation continued all during the brief life of the railroad, but motive power changed from horses to gasoline soon after the rails were laid. The railroad put the Ocean Shore stagecoach line out of business, but some shippers continued to use the old teaming road from Half Moon Bay to San Mateo.

The railroad originated as a great stock-selling and real estate promotion scheme. It was constructed over a difficult course along the scenic bluffs of the Pacific from San Francisco to Santa Cruz. A long string of seashore towns like those of the New Jersey Coast was visualized. Ocean front ranches were subdivided and lots sold by the hundred in those "future Long Beaches and Atlantic Cities." Construction was started southward from San Francisco and northward from Santa Cruz. The two sections, however, never met. Financial difficulties forced the construction of the northern segment to end at Tunitas Creek. Tunitas Glen, with a few ranches in a mountainous valley, became the terminus.

Regular freight and passenger service was established. Special stress was put on week-end passenger excursions from San Francisco to the shore.

When purchasers of the lots discovered how inaccessible the coast was, and what poor service the railroad gave, they gave up or sold out, with great loss resulting. Agriculture continued as if nothing had happened. The few folks who had built homes found commuting to San Francisco difficult and, consequently, spent little time there.

Half Moon Bay was the only established town on the line. The narrow agricultural strip between the mountains and the sea did not provide enough traffic to support a railroad. The road never made a profit. Its rapidly accumulating deficit was met by seven assessments on stockholders, aggregating \$29 per share. When the company could not pay the wage scale established by the U. S. Labor Board in 1920, the employees resigned, causing operations to cease. Permission to abandon the line was requested and granted. Stockholders received the first return on their investments when liquidation dividends were issued after the property was scrapped and sold.

Motor trucks came soon after the railroad was built. Their faster speed with pick-up and delivery services attracted much tonnage that otherwise would have gone to the railroad, even though truck rates were higher. A considerable part of the passenger business was lost to the family automobile. Buses started competing in 1915 when the Ocean Shore Highway was paved. A common carrier truck line was started in 1919. The existence of all these highway transportation facilities enabled the Ocean Shore Railroad to cease operating an unprofitable investment and permitted the assessments against the stockholders to end.

At the outset, the Ocean Shore Highway did not follow the shore continuously. At Pedro Mountain it took a crooked, steep route inland over the ridge and at Sharp Park (Salada Beach) it went inland to Colma. There was no road along the ocean shore from Sharp Park to San Francisco. After the railroad was dismantled, the State Division of Highways extended the Ocean Shore Highway (No. 1) along the rail right-of-way around Mussell Rock from Sharp Park to the San Francisco line and established a new alignment over Pedro Mountain using part of the old rail route. In southern San Francisco, the old-right-of-way was converted into broad, sweeping Alemany Boulevard, which U. S. 101-A follows out of the city.

Community Growth

These changes greatly improved the road to the city. Motorists can now drive to the city without negotiating steep grades, and the time needed for the trip is considerably shortened. Also, San Francisco motorists in great numbers are discovering the scenic and recreational value of the shore road, thus bringing much business to the coast-side merchants. The new, shortened level highway permits a convenient bus schedule for San Francisco commuters. The result has been a new, steady, permanent growth in the developments envisioned years ago by promoters. Scores of new houses have been erected by year-round residents. The towns are growing nore as city suburbs than as seashore resorts. Prior to 1930, many subdivisions did not acquire enough permanent residents to make any showing in the county registration records. The 1938 county books disclose a substantial number of registered voters in every ocean-front development. Each community has witnessed a marked increase in population despite the loss of the railway, the estimated average growth for all the towns and villages being 78 per cent from 1920 to 1938. Half Moon Bay's population grew from 1,200 to more than 1,500. El Granada climbed from 40 residents to approximately 170. Pedro Valley's rise was from 15 to 106. Montara totaled 197 in 1920, but now has 211 people. Sharp Park's citizens increased from 70 to 413. Edgemar jumped from five settlers to 24. Vallemar had 20, now has 115 inhabitants. Moss Beach grew from 50 to 164. Miramar's increase was from 40 to 110.

Good highway transportation facilities have attracted many new garages and filling stations besides taverns and cabin camps that depend almost entirely upon tourists and city motorists. Of the 50 such establishments along the Ocean Shore Highway, 35 were erected after the passing of the railroad.

Taxes

These roadside enterprises paid \$1,746.47 in property taxes to San Mateo County in 1937, of which \$824.79 went to the support of schools. In 1919, during the railroad's last complete year of service, its tax bill to the State of California was \$8,981.94, none of which was earmarked for local or school use in the county. This sum was placed in the general fund of the State, from which State aid to counties and schools was paid, but these subventions had no relationship to the amount received into the general fund from the railroad.

Gasoline consumed by vehicles on the Ocean Shore Highway from the San Francisco line to Tunitas Creek in 1937 accounted for \$59,595.66 in State tax revenue. The Federal gasoline tax brought in \$19,865.22, and the Federal lubricating oil tax totaled \$992.84.

Computed on a mileage basis, the Pacific Greyhound Lines paid approximately \$1,000 in taxes for their operations on the stretch of road. The three common carrier truck lines paid approximately \$940 on the 3¼ per cent of gross receipts levy, and \$240 for corporation, franchise and permit fees in addition to license fees.

The 131 trucks in the coast side communities paid \$1,631.67 in license fees and \$599.51 in property taxes, and the 920 passenger cars \$2,760 in license fees and \$3,136.42 in property taxes.

Totaling these amounts shows that highway transportation and related business establishments now pay \$92,507.79 in tax revenue in one year, as against the railroad's final annual payment of \$8,981.94. The tax contribution of the highway is ten times as great as that of the abandoned railway.

Employment

The San Francisco-Tunitas line of the Ocean Shore Railroad had 107 employees when it closed in 1920, only 20 of whom lived in the area under study. In 1938, highway transportation was furnishing employment to 119 people, of whom 92 reside in the area. Of these, 80 work at garages, filling stations and motorist establishments, and 39 for the bus and truck lines.

Service

(A) Passenger: The railroad ran a daily round trip from San Francisco to Tunitas and another from Half Moon to the City, with additional Sunday schedules in the summer. Half Moon and the stations to the north had two trains each way daily; those south of there had only one in each direction.

The present bus line offers the same number of trips over the Ocean Shore Highway, but also offers an additional round trip from the city to Half Moon Bay over the Bay Shore Road through San Mateo, and a daily round trip southward down the ocean front to Santa Cruz. The railroad offered neither of these latter schedules.

	Railroad (1920)			Bus (1938)				
From	Running	Fares		Running	Fares			
San Francisco To:	Time in Minutes	One Way	10-Ride Commutation	Time in Minutes	One Way	12-Ride Commutation		
Edgemar	45	\$.40	\$3.00	37	\$.30	\$2.00		
Sharp Park	48	.45	3.00	40	. 30	2.00		
Brighton	49	.45	3.00	43	.35	2.00		
Vallemar	53	.45	3.00	45	.35	2.00		
Rockaway Beach	55	. 50	3.00	46	. 40	2.00		
Pedro Valley	61	. 55	3.00	51	.40	2.00		
Montara	80	.70	3.75	58	. 50	3.00		
Moss Beach	82	.75	4.00	64	. 50	3.00		
Princeton	85	. 80	4.00	70	. 55	3.00		
El Granada	90	. 85	5.00	80	. 55	3.00		
Miramar	95	. 85	5.00	85	. 55	3.00		
Half Moon Bay.	100	.95	6.20	90	. 55	3.00		
Purissima	115	1.05		106	.65			
Lobitos	120	1.15		112	.70			
Tunitas	125	1.15		117	.75			

COMPARISON OF PASSENGER SERVICE

(B) Freight: Four common carriers and eight contract carriers of freight by motor vehicle perform a daily service along this route. These lines operate north to San Francisco, east to San Mateo and south to Santa Cruz, whereas the railroad hauled only to San Francisco. The service supplied by these trucks is far more flexible and convenient than was possible for the railroad to offer. Their time schedules are faster and they perform the valued service of collection and delivery.

Despite the fact that these truck rates are higher than those contained in the last railroad tariff, the flexibility and convenience of the highway transport resulted in their early patronage. High drayage costs were eliminated and as the delivery and pick-up service is included for a large area in central San Francisco and for any point within five miles of the Ocean Shore Highway, the total charges are no higher than those provided under the rail tariff.

The railroad's greatest service at the last was in hauling stable manure for the artichoke farmers, but that traffic disappeared when San Francisco became virtually a "horseless city." Artichokes and other vegetables are grown just as before.

Half Moon Bay's vegetable cannery continues to operate without the rails. A bulk gasoline distributing plant on the old railway closed after the abandonment, but was reopened several years ago when it was found that trucks could perform the needed service. Another bulk gasoline plant is being erected. The town recently voted to build a new high school building.

With improved highways, outings in the family automobile to the beaches and mountains of this scenic coast are now enjoyed by multitudes of San Francisco dwellers. These visitors bring much trade and money into the area. Residents of the coastal communities may now live in a scenic, rural seashore environment while enjoying all the advantages of the great city, now easy accessible.

Conclusion

After thus investigating those Pacific Shore communities, it becomes readily apparent that the passing of the railroad benefited rather than injured them from the standpoint of transportation, employment, taxation and community growth. Thanks to the Ocean Shore Highway and the flexible transportation afforded by the motor vehicle, these towns have enjoyed their greatest growth since the rails disappeared. A modern highway, not a railroad, was needed for them to begin attainment of the goal pictured by the rail promoters in earlier days.

SYNOPSIS

RAIL LINE ABANDONED: West River Railroad Company; 36 miles in southern Vermont; constructed 1870-1880; abandonment permitted January 15, 1936.

COMMUNITIES LOSING RAIL SERVICE: South Londonderry, Jamaica, East Jamaica, West Townshend, Townshend, Newfane and West Dummerston.

SOCIAL AND ECONOMIC EFFECTS: Highway transportation arrested decline of an agricultural area and reversed a half-century's downward trend in population. Its tax payments far exceed those of the railroad, and it substantially increased employment.

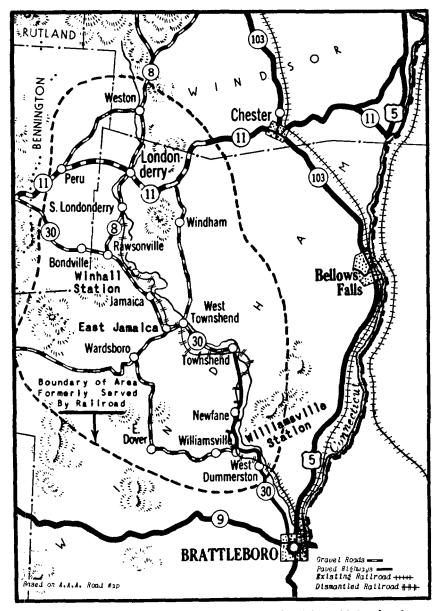
 $\mathbf{F}_{\mathrm{material}}^{\mathrm{EW}}$ sections of the United States present more interesting material for a study of changes in transportation methods than does the West River Valley of Vermont. To gain a background for that study, it is necessary to scan "things as they were" a little more than two centuries ago.

Colonists from Massachusetts, by 1728, had advanced up the Connecticut River Valley as far to the north as the mouth of the West River. There they had established a trading post and fort. As more British and New England colonists arrived at that point, the city of Brattleboro which had taken form there found itself growing. Home-seekers soon began to migrate up the West River Valley. Ultimately the villages of West Dummerston, Newfane, Townshend, Jamaica, Londonderry and Weston appeared along that stream. Farms were established in the narrow valley and timber was cleared to make fields.

So it was that the West River Valley became an agricultural and lumbering area. When later immigrants arrived, they had to establish farms farther up the slopes of the Green Mountains on poor, rocky soil. By 1890, cattle raising was the main industry.

This area, except for Brattleboro, reached its peak of population 50 years ago, then declined about 100 each year up to 1930. Hillside farms were abandoned by the score as farmers moved to more productive land or to urban areas for other employment.

After automobiles came in, thus making the West River Valley more accessible, city people began to discover its remote, unspoiled,



The West River Railroad Company was permitted in 1936 to abandon its line in this Vermont section. A gradual decline of the area has since been arrested; population figures show improvement has begun.

scenic areas. Many of them intrigued, returned to enjoy the cool, rural, peaceful summers. As farming declined, tourist business increased. Many outsiders bought the abandoned farms for use as summer homes, thus becoming part-time residents. A slight increase in population since 1930 is seen as the result. Large sums have been spent in restoring the colonial homesteads. Half-agricultural and half-summer resort, the valley is now enjoying prosperity.

The main occupations at present are serving the tourists and summer residents, dairy farming, lumbering and making maple sugar. Industries consist of small wood-working factories, sawmills and granite quarries.

A large percentage of the fields that were so painstakingly cleared of stones and trees by the first settlers have grown back into dense forests.

History of Transportation

The first settlers blazed a rough trail up the valley along the line of least resistance by the level river course. By 1790, this had developed into a crude road. In 1824, a family antecedent of President Taft surveyed and opened a highway along the West River, which is followed in most places by the present West River Highway (State Route No. 30).

A horse-drawn freight wagon line, a mail route and stagecoach company operated over this road from Brattleboro to Jamaica. Londonderry was served in like manner from the North.

The building of the narrow-gauge Brattleboro and Whitehall Railroad parallel to this old road from Brattleboro through the West River towns to South Londonderry, in 1880, killed those highway transportation enterprises. Later on this railroad was taken over by the Central Vermont Railway under lease. The new management converted it into a standard-gauge line and continued their operations until 1927. The name was changed to the West River Railroad in 1905. Adequate passenger and freight service was provided as long as the line was operated by the Central Vermont.

The great flood of 1927 destroyed much of the line's tracks, whereupon the Central Vermont Company sought to abandon it. Service was suspended and trucks were forced to haul freight over the poor roads from 1928 to 1930. Prominent local citizens, believing that the need for this rail service still existed, took over the road to run it as an independent short line. The State of Vermont loaned \$200,000 for rehabilitating the roadbed. Rebuilding began in June, 1930. Freight service was resumed in November, 1930, and passenger service in June 1931.

Financial and operating difficulties became so great that the local managers withdrew from active operation in March, 1933, when outside interests offered to lease it.

The employees are reported to have been paid irregularly after the first year. Consequently, according to the statements of shippers, the service was sporadic and undependable.

Shippers had seen the greater convenience of truck transportation demonstrated to them during the years the line was not in operation. When the rail service was resumed, shipping and travel habits had been changed so greatly that few people bothered to patronize the railroad. The result was that the lessee was permitted to abandon the line in January, 1936. The West Dummerston granite quarry owner bought the southern seven miles of it and uses it as a private spur from Brattleboro to his quarry. The remainder of the railroad tracks has been removed. Some of the bridges are retained by the towns as highway bridges.

The West River Highway from Brattleboro to South Londonderry was graveled in the 1920's and early 1930's. It was added to the State highway system in 1935, being designated as routes 30 and 8, and was paved from Brattleboro to Townshend village in 1933. In 1938, the road is being realigned and paved through Townshend and Jamaica towns. It is gravel surfaced in Londonderry and Weston.

The first bus line through this valley was started in 1923. This was operated continuously until the railroad resumed operations after the flood. Bus service was then restricted by State authorities to enable the train to obtain most of the business. Soon, however, the railroad's lessee began hauling his passengers by bus, because the railroad became unsafe for passenger travel. The West River line later bought this bus line and continues passenger service to this day.

Truck service was inaugurated about 1925 and has since been continuous. Not until the 1927 flood stopped rail service, however, did the use of trucks become popular.

Trucks were being used to haul logs from the woods. So, rather than reload the logs on rail cars for shipment to Brattleboro, lumbermen adopted the practice of shipping them all the way by motor vehicle.

Highway transport had practically replaced the railroad in milk and cream hauling before the abandonment. When trucks replaced wagons as a means of collecting milk from the farms, their use was soon extended to Brattleboro, thus avoiding the necessary transfer at village railway stations.

Soon after the railroad was torn up, residents of the valley found that they could get along very well with only highway transportation.

Employment

From 1930 until cessation of regular operations in 1934, the West River Railroad employed from 7 to 17 people. Changes in the road's management and corporate identity, and also several interruptions in operations due to floods and other difficulties, resulted in frequent changes in the personnel.

Half of the original employees of the road under Central Vermont management went to other sections of that railway system when the latter relinquished control of the West River; others found employment elsewhere.

There was no continuity of employment. During the last period of operations, as it is reported, work was interrupted because of financial difficulties. Such uncertainty of railroad employment contributed greatly to the transition from one mode of transportation to another. As a result, no one was greatly handicapped in his employment when railroad operations finally ceased.

In the meantime, employment in highway transportation had reached considerable proportions.

By 1938, roadside establishments catering to highway travel were giving means of livelihood to 14 individuals on a full-time basis and 13 part-time. In addition, operation of similar enterprises engaged four families full-time and ten part-time.

Two common carrier transportation companies in this region give jobs to six men full-time and two part-time; other commercial truckers provide employment for 24 full-time and seven part-time, not counting one additional family of truckers.

It is estimated that employment in highway transportation and auxiliary facilities is approximately five times greater than the former railroad employment.

Service

(A) Passenger: Since 1924, the railroad operated one round trip daily except Sunday to South Londonderry. The present bus line offers the same number of trips, but also serves Londonderry and Weston and goes on to Rutland. The train made the one-way trip to South Londonderry in three hours; the bus requires only two hours. Bus fares are slightly higher than the last fares charged by the railroad.

Popularity of the bus line is evidenced by the fact that passenger revenue of the railroad for the first nine months of 1933 amounted to \$508.30, while the bus line revenue for the last eight months of 1937 totaled \$1,109.25.

(B) Freight: The highway freight service is now offered by two common carriers, one covering only a portion of the route and the other covering the entire route.

The railroad during the last nine months of 1933, carried 2,392 tons and received \$4,277.00 in freight revenue. In 1932, it received \$4,384.58 in freight revenue for the entire year. In 1937, the two common carriers by highway carried 9,332 tons of freight and received \$8,901.27.

It appears that a trend toward small-lot shipments has developed during the last ten years. This was true in the lumber business, for example. One of the large saw-mill owners explained that he would not now use the railroad, even if it were running, because he would not have any carload shipments to make, even if he wanted to

(Class Rates in Cents Per 100 Pounds)										
	Railroad (1935)					Truck (1938)				
From Brattleboro To:	$\frac{1}{1}$	Class 2	Class 3	Class 4	Class 5	Class 1	Class 2	Class 3	Class 4	Class 5
West Dummerston Williamsville	32	27	22	$\overline{17}$	11	$\overline{25}$	20	17	14	10
Station	32	27	22	17	11	25	20	17	14	10
Newfane	34	29	24	18	12	30	25	22	19	15
Townshend	36	30	25	19	13	30	25	22	19	15
West Townshend	38	32	$26\frac{1}{2}$	20	14	35	30	27	24	20
East Jamaica	38	32	$26\frac{1}{2}$	20	14	35	30	27	24	20
Jamaica	~ ~	33	27	21	15	35	30	27	24	20
Rawsonville						40	35	32	29	25
Winhall Station		36	29	22	16					
So. Londonderry.		37	30	23	16	40	35	32	29	25
Londonderry		(En	d of L	ine)		40	35	32	29	25
Weston		•••	••			45	40	37	34	30
(Truck line goes on to Rutland)										

COMPARISON OF FREIGHT RATES (Class Rates in Cents Per 100 Pounds)

make them. Truck load shipment has become the customary unit, and some customers refuse to accept shipments by rail. Truck deliveries of lumber are being made as far as Boston, 130 miles away.

Truck rates average about the same as former rail charges. However, the railway offered no pick-up and delivery service. The truck rate covers the entire haul from door to door.

Taxes

The West River Railroad paid the State of Vermont \$312.48 in taxes for 1932, the last full year of regular operations. Local counties and towns collected nothing from it.

Garages and automotive establishments along the West River Highway between and including West Dummerston and South Londonderry paid \$368.51 to towns and \$208.28 to schools as property taxes in 1937. The 1,274 motor vehicles registered in the contributing territory of the railway for that year paid \$23,500 to the State for license tags, of which amount the 144 trucks supplied \$8,670. The State tax received from gasoline consumed in traffic on Highways 30 and 8 between West Dummerston and South Londonderry for one year amounted to \$8,299.22. The Federal gas tax brought in \$2,074.81. The Federal lubricating oil tax produced \$103.70.

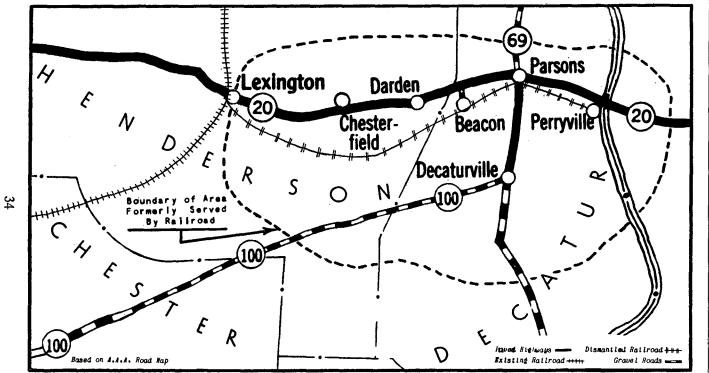
To sum up, highway transportation in one year paid a total of \$34,554.52, or 110 times the railroad's \$312.48 offering.

Departure of the railroad has had no adverse economic effect on the West River communities. The new lumbering methods of the community do not require rail facilities. Sawmills have continued to operate and a new wood working plant is being built in South Londonderry. Farming and cattle raising have declined so much that heavy or carload shipping facilities are no longer desired. The new summer residents and the increased tourist businesses do not need a railroad.

Conclusion

٢

Motors and roads can take credit for rescuing a declining area. Were it not for the fact that the automobile made this valley so accessible to large cities, it is quite certain that no other source of livelihood would have developed to take the place of diminishing agriculture. As matters stand, the roads brought outsiders into the valley, and with them came new jobs, better business, much money to be spent locally, improvement of buildings and a halting of the 50-year population decline.



Unprofitable operations forced abandonment in 1936 of a Nashville, Chattanooga and St. Louis line in western Tennessee, with several comunities losing rail service. The region now gainfully relies on highway transport.

IN THE TENNESSEE RIVER VALLEY

SYNOPSIS

RAIL LINE ABANDONED: The Louisville and Nashville Railroad Company (owner) and The Nashville, Chattanooga and St. Louis Railway (lessee); 24.14 miles in western Tennessee; construction completed in 1889; abandonment permitted October 14, 1936. COMMUNITIES LOSING RAIL SERVICE: Warrens Bluff, Chesterfield, Darden, Beacon, Parsons, Perryville. SOCIAL AND ECONOMIC EFFECTS: Business and employment in the only incorporated town in the area has increased substantially since abandonment of the railroad. The tax contribution of highway transportation far exceeds that of the railroad. Business men and farmers are furnished a more convenient and faster transportation service.

WHERE the lower valley of the Tennessee River cuts across Henderson and Decatur Counties in the State of Tennessee, half a dozen small communities share a significant past. Their story is typical, in its broad aspects, of many territories where the depletion of natural resources has been witnessed.

This particular region, located midway between Nashville and Memphis and extending eastward from Lexington through Parsons to Perryville, has witnessed the advent of highway transportation as a means of saving it from isolation and a long succession of dull, unprofitable years.

The rail line which had served the area several decades was abandoned in 1936. Lumbering operations were the principal source of revenue in this section for years. The gradual decrease in standing timber resulted in a falling off of lumber-hauling and contributed to the need for abandonment of the rails.

The small villages along the rail route—including Bluff, Chesterfield, Darden and Beacon—appeared for a while to be headed for dismal times.

Today, however, the area's population has increased above the level it held before becoming entirely dependent upon motor vehicles and highways for transportation facilities. Highway-transport enterprises employ more men and pay more taxes than records place to the credit of the abandoned railroad line. The territory around Perryville now is marked mainly by agricultural pursuits, with some live stock and poultry supplementing the raising of crops. Little virgin timber remains.

Railroad History

The Perryville Branch Line, as the abandoned rail line was called, was a part of a line constructed in 1888-89 from Memphis to Perryville by the Tennessee Midland Railway Company. Original plans of the Tennessee Midland were to construct a railroad to a point on the Tennessee-Virginia State Line. It became bankrupt, however, after construction of the line to Perryville. In 1892, the Paducah, Tennessee and Alabama Railroad Company completed construction of a railroad extending from Paducah, Kentucky, in a southerly direction to Lexington, where it connected with the Midland Company's line from Memphis to Perryville. In 1895, both of the above lines were acquired by the Louisville and Nashville.

Changing transportation methods, the declining lumber industry, and paving construction of State Highway No. 20 in 1931, resulted in net railway operating deficits for the branch averaging \$30,000 annually for the years 1931 to 1935. Two or three years prior to its abandonment, the railroad established a pick-up and delivery service. In practical operation it was, according to the statements of shippers and patrons, a hit or miss proposition, undependable, unreliable and unsatisfactory generally.

When the company first proposed abandonment of the railroad, people in towns along the branch feared that they would have to discontinue business and that population and trade in the area would decline seriously. The dire prophecies, however, did not materialize.

Service

(A) Passenger:

Dixie Greyhound Lines operate two round trips daily over State Highway No. 20. Another bus line makes one trip daily from

COMPARISON OF RAIL AND BUS SERVICE									
	Railroad	(1936)	Bus (19	Bus (1938)					
From	Running	Fares	Running	Fares					
Lexington	Time in	in	Time in	in					
To:	Minutes	Cents	Minutes	Cents					
Chesterfield	22	14	10	12					
Darden	34	19	15	17					
Parsons	69	27	20	25					
Perryville	89	37	30	35					

Decaturville through Parsons to Jackson, although not running to Perryville or east of the Tennessee River.

(B) Freight:

A common carrier truck line operates regularly over the route formerly served by the railroad, and upon request, will usually make a special trip to pick up merchandise.

As highways were improved, more and more farmers purchased trucks to haul their own live stock and produce to market. A live stock grower having 10 or 15 head of live stock ready for market ships them, or hauls them in his own truck, to a Memphis or Nashville market and receives his cash within three or four hours. When live stock was shipped by railroad, he often had to wait a week or ten days until a minimum carload—60 to 75 head—was ready.

Incoming merchandise, live stock and poultry feed can be hauled into the locality far more conveniently than they formerly were moved by railroad. Goods ordered from Memphis and Nashville are usually delivered the next day; railroad delivery ordinarily required at least two or three days.

Older people in the locality say that they "hated to see the railroad go," apparently for sentimental reasons. With few exceptions, business men agree that trucks are furnishing a service that is much more flexible, convenient and dependable, at rates no higher than those formerly charged by the railroad. In October 1938, there was pending a proposed intrastate truck tariff providing decreases of four cents per hundredweight on classes one and four rates and three cents on classes two and three rates.

Employment

The railroad employed a train crew of five men, one station agent, three station "caretakers" working part-time, and an average of ten section men. All regular employees went to the main line of the Nashville, Chattanooga and St. Louis when the Perryville Branch was abandoned.

Two new filling stations in Parsons average five employees. The Gulf Terminal Plant at Perryville, built since the railroad was abandoned, employs eight men. Common carrier freight and passenger vehicles employ four.

Transportation of gravel from the Tennessee River, cotton from the various gins in the territory, and live stock shipments give irregular employment to truck drivers for considerable portions of the year. By conservative estimate, at least 200 private trucks used in the area furnish employment for as many persons, some on fulltime, others on part-time.

At least five new business establishments have located on the highway since the railroad's withdrawal—filling stations, lunch rooms, and soft drink stands. The majority of these are operated by the owner, or by him and his wife, without hiring additional help.

Taxes

The average annual total taxes paid by the railroad during the last four years of operation was \$2,330.25.

The 1,852 motor vehicles in the territory immediately tributary to and formerly dependent upon the abandoned line paid \$19,557.12 in registration fees and \$10,458.06 in property taxes in 1937. The state tax on gasoline consumed by traffic on the highway paralleling the former railroad between Lexington and Perryville amounted to \$27,944.65; the Federal gas tax \$3,992.09, and the Federal lubricating oil tax \$199.52. Mileage taxes on the common carrier truck and the two bus lines serving the area totaled \$285.66

Property taxes on highway establishments amounted to \$395.13, and privilege and other special levies on these businesses to \$123.45, making a total of \$518.58.

Comparing the tax contribution of the old and new transportation methods, highway transportation pays a total of \$62,955.68, or 27 times the railroad offering of \$2,330.25.

Community Growth

Parsons, the only incorporated town along the Branch, has been successful in persuading a shirt manufacturing company to operate in the town since the railroad left. It now employs 150 men and women. It is currently believed that this payroll will increase eventually to a minimum of 200.

Within the past two years, 20 new dwelling houses have been built in the town. The first movie theatre has also been constructed within that period, as well as six other new commercial buildings. Bank deposits have grown. Population has increased from 915 to an estimated total of 1200.

Populations of the smaller communities of Bluff, Chesterfield, Darden and Beacon have remained unchanged. Perryville, on the Tennessee River, has not been adversely affected by the loss of the railroad.

THE UINTAH BASIN OF UTAH

SYNOPSIS

AREA SURVEYED: Uintah Basin in northeastern Utah containing twenty-two communities,—the largest being Duchesne, Roosevelt and Vernal.

SOCIAL AND ECONOMIC EFFECTS: An agricultural area larger than some entire states in the East has been settled and developed without any rail transportation. Highway transportation, alone, adequately serves communities similar to hundreds of others which have considered railroads indispensable to existence.

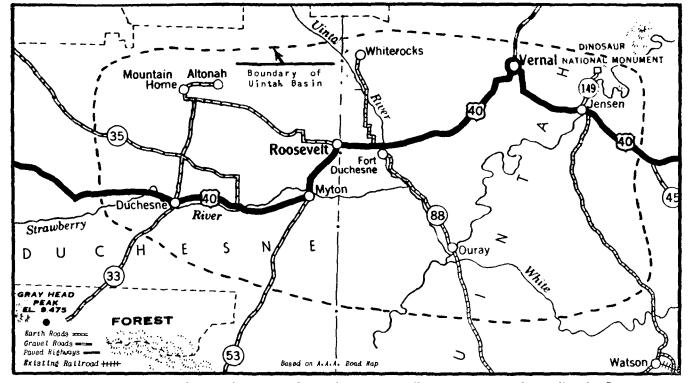
AN AREA approximately as large as the State of Connecticut has never had a railroad. This mountain-enclosed empire, sometimes called the last frontier, has been settled and developed since 1906 solely by means of highway transportation. The Uinta Indian Reservation was thrown open for white homesteading in that year and there followed one of the final twentieth-century colonizations of a primitive area.

Settlers came in by covered wagon over the crude trails, established homes, built irrigation systems, laid out twenty-two towns, of which Duchesne, Roosevelt and Vernal became the largest. Wagon train and stagecoach lines were established into and across the Basin. As in most pioneer communities, its founders had great expectations for it and, according to tradition, the first settlers were doomed to many disappointments and failures.

The homesteaders came with the expectation of getting a railroad later. Vernal built a station to give to the hoped-for line, but construction was stopped fifty miles away.

The settlers were at a transportation disadvantage before the advent of automobiles and good roads. Teaming companies had to charge excessive rates for hauling over the difficult terrain. "Believe It Or Not" Ripley reports that the Vernal bank was built of bricks mailed three at a time by parcel post in order to get cheaper rates than by wagon train. The haul to Salt Lake City took six days. It was two days to the nearest railway.

Around 1914, the horse stages became auto stages and motor trucks gradually supplanted freight wagons. Then, for ten years, free-for-all trucking reigned. In 1926, a common carrier truck line was established. Three regular-scheduled truck lines now haul in



The Uintah Basin in Utah, covering more than 4,000 square miles, has never had a railroad. Improved highway transportation in recent years has greatly aided this area, opened to settlement in 1906.

and out of the Basin in three directions, and thirty contract carriers go anywhere. The Denver-Salt Lake Stages, Inc., runs two buses each way daily over U. S. 40 the whole length of the Uintah country.

The pioneer trails were gradually improved into state highways. Snow removal in two of the passes has been continuous since 1921. The first hard surfacing was done in 1922. Since then the highways have been constantly improved until now most of the main roads in the Basin are all-weather, and U. S. 40 is paved.

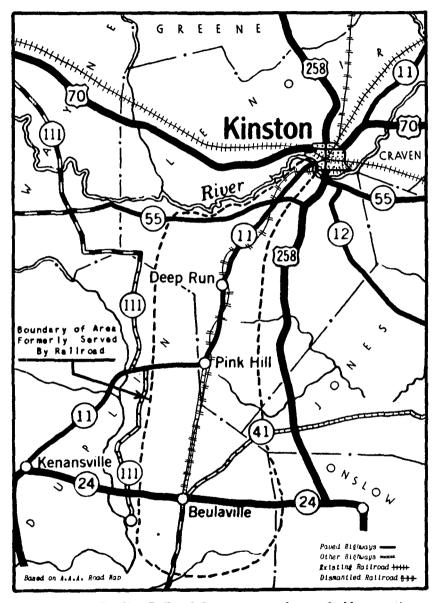
Highway improvement has been of great benefit to Uintah residents and shippers. Freight rates have steadily declined as roads were made better. Thanks to fast vehicles and good highways, Salt Lake City—120 miles distant—can be reached in three hours, the nearest railroad in an hour. Live stock, once driven to a railroad and shipped to market, is now rushed by truck to the Salt Lake City or Ogden stockyards with minimum shrinkage. Dairy and poultry products are trucked to Utah cities and some go to California by highway. They are now delivered in Los Angeles, over 700 miles away, in less time than previously was needed to get them to Salt Lake City. The Salt Lake City morning papers arrive at 10 a.m.

These benefits now place the Uintah Basin on an equal competitive basis with any other agricultural region in Utah.

The sons of the original pioneers are now realizing some of the transport dreams of their fathers who sought the railroad. The prosperous future visioned by the homesteaders at last is beginning to be realized. The paving of transcontinental U. S. No. 40 through the Basin assures dependable, rapid marketing of local products. Hundreds of motor tourists are crossing the Basin on this route, bringing trade and money to operators of hotels, restaurants, garages, filling stations and tourist camps.

Since this area is now so easily accessible, there is much recreational travel to the Basin as well as through it. Many tourists come especially to see the dinosaur quarries at the newly established Dinosaur National Monument. Others come to observe the picturesque Uinta and Uncompany Indians in their native habitat. Sportsmen are attracted to the hunting, fishing and skiing areas in the Uintah, Wasatch and Ashley National Forests.

By means of the family car or the motor stage, residents of this "last frontier" may now easily enjoy a shopping trip to Provo, a Broadway play in Denver, a symphony concert in Salt Lake City, or a ski meet in the Wasatches. Page Brigham Young, Jim Bridger and Jacob Donner!



The Kinston Carolina Railroad Company ceased unprofitable operation of its line in this section of eastern North Carolina in 1929. Transportation needs have been met since then by highway facilities.

SYNOPSIS

RAIL LINE ABANDONED. Kinston Carolina Railroad Company; 31.1 miles in eastern North Carolina; constructed from Kinston to Pink Hill about 1900, extended from Pink Hill to Beulaville in 1917; abandonment permitted May 19, 1929.

COMMUNITIES LOSING RAIL SERVICE: Deep Run, Pink Hill and Beulaville.

SOCIAL AND ECONOMIC EFFECTS: North Carolina communities with highway transportation available, were injured in no way by removal of the railroad. Highway transportation pays far more in taxes than did the railroad, creates considerably more employment and provides improved service at lower cost.

MORE than one-third of the communities in North Carolina have no railroads or waterways and are solely dependent upon highways for transportation. Due to the development of motor vehicles and of highways, these towns no longer are at a transportation disadvantage when compared with their sister cities on water or rail lines. Furthermore, motor transportation relieves railroads of the necessity of maintaining unprofitable branch or feeder lines.

In their present highway era, three inland towns now without rail service, were studied in detail. The record shows that they are better off economically and have more convenient transportation service than before they lost railroad service. Highway transporters provide faster and more frequent passenger service, cheaper and better freight transportation. Bus and truck concerns and roadside establishments employ many more people than the railroad did, while motor vehicles and related businesses provide far more total taxes.

Deep Run, Pink Hill and Beulaville, towns on the Kinston Carolina Railroad which ended operations in 1929, have larger populations, more retail business and more highly developed agriculture than they had in railroad days.

Description of Area

This area, which now relies entirely upon highway transportation, is in Lenoir and Duplin Counties on the Coastal Plain of Eastern North Carolina. Lumbering was once a large industry there, but most of the original timber has been cut. Lumbering is still carried on, however, and because of rapid regrowth of the forests, it will continue to exist. Farming of tobacco is the main occupation. Cotton, live stock, various grains and fruits and vegetables are also raised. The three towns are retail headquarters for the farmers, but Kinston always has been the marketing and wholesale center for the territory. Population increased steadily from 1900 to 1930; the growth since the latter year is estimated to have been 14 per cent.

Highway Development

Advent of the automobile to this area meant a great deal even prior to the time when paved highways were constructed, because the sandy soil provided the territory with fairly passable natural earth roads. In 1920-21, a sand-asphalt hard-surfaced highway (North Carolina No. 11) was constructed by Lenoir County, replacing an old wagon trail from Kinston to Pink Hill; and in 1928, just before the railroad quit, Duplin County opened a new sandclay road from Pink Hill to Beulaville. During the railroad regime, Beulaville had only dirt roads; but after the rails ceased operation, State Highway No. 24 was routed through there and paved late in 1930.

Perhaps the principal result of the appearance of motor transportation in this area has been its adoption for the transportation of goods between wholesalers in Kinston and the retailers in the area, and between the small growers and the warehouses elsewhere. The new highway to Wilmington gave them a shorter outlet to that seaport, permitting shorter truck hauls of fertilizer. In general, the advent of highway transportation brought better and cheaper service.

The number of motor vehicles in Lenoir and Duplin Counties reached a total of 9,200 in 1927 and 13,585 in 1937. While passenger cars increased moderately from 8,105 in 1927 to 9,900 ten years later, trucks have shown an uninterrupted increase from 1,095 to 3,685 or more than 230 per cent. In 1937 there were 2,450 taxed vehicles in the immediate area of the abandoned railroad.

Motor vehicles and the highway can take most of the credit for bringing new business houses and taxable buildings into these neighborhoods. Of the 50 filling stations, garages, refreshment stands, and stores on the Kinston-Pink Hill-Beulaville highway, only six were in existence before the northern part of the road was paved. Sixteen had been built before the railroad withdrew, while three were constructed the same year, and thirty-one afterwards.

Railroad History

The Kinston Carolina Railroad was built to tap timber resources, and then became a general service line providing regular freight and passenger service to the communities along its route. It was constructed from Kinston to Pink Hill at the turn of the century, and was extended to Beulaville in 1917. It paralleled a dirt wagon road all the way to Pink Hill, but there was no nearby highway the rest of the way to Beulaville.

Principal commodities carried were fertilizer, lumber, farm products, road-building materials and merchandise. The only recent years in which the line made a profit were 1921, when the parallel Highway No. 11 was being paved, and 1929, during the construction of the road to Wilmington.

Passenger traffic was never very lucrative to the railroad, so it was discontinued in 1926. Since truck haulage was less costly, faster and more flexible, much of the railroad's freight business changed over to the more desirable vehicles. Kinston wholesalers started delivering directly to their customers' doors in their own trucks, while farmers and merchants began to do their own transporting in private automobiles and trucks. With the best timber exhausted and the perfection of motor vehicles and development of highways causing people to change their shipping habits, not much remained for the rails to haul. Therefore, in view of the nine years of deficits and the poor prospect for future traffic, the line applied to the Interstate Commerce Commission for permission to abandon, which was granted. Operations ceased on May 31, 1929.

No resident of the area opposed the abandonment at the hearing. Thanks to the gasoline age, public convenience and necessity did not require that the railroad continue to operate, so the Norfolk Southern benefited by being able to abolish an unprofitable branch. Railroad officials reported that the main system lost no traffic, because a line still serves Kinston, the trade center, and traffic from the communities on the dismantled line reaches the rails by highway.

Employment

Existence of the Kinston Carolina Railroad provided some employment to the adjoining communities. At the time of the extension of the line from Pink Hill to Beulaville as many as 60 people were connected in one way or another with the railroad company, a number of them having been residents of the adjoining villages. Fewer employees were needed in normal years. In 1929, their number stood at 24. These included two or three officials of Norfolk Southern, which owned the railroad company's stock, ten who were also employed by Carolina Railroad at the same time, and 11 maintenance of way and structures men. The 11 were laid off when railroad operations were abandoned. All of them, however, found new employment. One foreman became a town engineer, another went to another railroad; section laborers became farm hands or took highway construction jobs.

The ten who also worked for Carolina Railroad, a small separate line nearby, remained with the latter road. However, the Carolina Railroad also was abandoned soon thereafter. The history of these men is interesting. Two of them found employment with other railroads, another now runs an automobile garage, still another went into electrical contracting, and the others took up farming and mis cellaneous work. None of them appeared on relief rolls as a result of railroad abandonment.

Highway transportation was generous in providing new opportunities in this area. A survey of only those highway establishments that are located along the road closely paralleling the formerly existing railroad shows that 35 people are employed on full-time and 13 on part-time basis in filling stations, garages and other establishments catering to motorists. In addition, 14 families operate filling stations and stands while pursuing other occupations, especially farming. According to some tax listers interviewed in this area, the highway improvement and the growth of motor transportation were the principal, if not the only, reasons for the appearance of the enterprises on these highways, even though they do a substantial local business.

The Queen City Coach line running from Kinston to Pink Hill and farther southward has two bus drivers and an agent in the area, and a part of their time is spent in connection with the service in this locality. There are also two common-carrier truckers who go through occasionally and nine contract truckers who are also mostly farmers. In this way, highway transportation provides an auxiliary source of income to those whose primary occupation may not be sufficient to provide a livelihood.

The number of persons in one way or another connected with highway transportation is about 75, or three times as many as were employed by the Kinston Carolina Railroad in 1929. None of the industrial establishments depended completely upon the railroad. True, there were sawmills, since closed, which shipped by rail, but new sawmills dependent entirely on trucking have appeared. The employment in the old mills is balanced by the employment in the new. In general, these mills close and spring up again, depending largely upon the markets and lumber supply rather than the kind of transportation facilities available.

Service

(A) Passenger:

Motor bus operations on Highway No. 11 were officially certificated in 1927, ended March 23, 1928, resumed January 12, 1929, and ended on August 1, 1932. The present bus line originated service in March, 1935, and has run continuously since then.

The buses make three trips daily in each direction between Kinston and Pink Hill. They traverse the 18.2 miles in 31 minutes and charge 30 cents. Up to November, 1925, the railroad made one round trip daily except Sunday for freight and passenger service, covered its 19.5 miles in 75 minutes and collected 71 cents per passenger. Then for a year, a round trip was made on Monday Wednesday and Friday only, but in November, 1926, passenget service was discontinued. No bus line serves Beulaville, and its rail passenger service existed only from 1917 to 1926. The nearest bus line stations are Pink Hill, nine miles, and Kenansville, 11 miles.

Bus popularity is obvious from the fact that it carried about 2,160 passengers in ten months of 1937 between Kinston and Pink Hill, while the railroad line, which was ten miles longer, carried only 395 in the corresponding ten months of 1926.

	Railroad (1926)			Bus (1938)		
From Kinston To:	Distance in Miles	Running Time in Minutes	Fares in Cents	Distance in Miles	Running Time in Minutes	Fares in Cents
Deep Run Pink Hill Beulaville	$ 12.0 \\ 19.5 \\ 28.4 $	$\begin{array}{r} 45\\75\\120\end{array}$	$\begin{array}{r} 44\\71\\104\end{array}$	11.8 18.2	22 31	25 30

COMPARISON OF PASSENGER SERVICE

Passengers carried by bus for ten months, 1937–2,160. Passengers carried by railroad for ten months, 1926–395. In considering the relative advantages of passenger transportation in railway and highway eras, the importance of the private automobile should not be overlooked. Nearly every family in this section has its own car.

(B) Freight:

During its last years, the railroad offered a tri-weekly schedule, but shippers gradually found it expedient to switch to trucks. Kinston wholesalers originated store-door delivery. Truckers delivered fertilizer to the farmer's field faster and cheaper than the railroad brought it to a siding. As farmers bought autos, trucks and trailers, they began to haul their own produce to market and to bring supplies back. Therefore, when the rail line cancelled operations, the average farmer or shipper did not miss it.

Most of the traffic in the locality is hauled privately. There is no regular-scheduled common-carrier truck line operating. Two common carriers serve there on demand, however. Formerly Beulaville and Pink Hill each had two common carriers, but they ceased operations. Beulaville now has five contract truckers; Pink Hill, one; while three live between Deep Run and Kinston.

The basic truck rate is the railroad rate and always has been. But the trucks have the advantage in delivering commodities to the merchant's door and to the farmer's field or barn. Shippers have to pay the same rates, but goods shipped by truck do not have to be lugged to or from a station or siding. Country storekeepers have to go after nothing. Merchandise and stock is delivered to rural stores by the jobbers or salesmen who make the sale. Fertilizer, the bulkiest commodity shipped in, was \$4.85 a ton from Wilmington via the circuitous rail route, but is \$2.00 per ton over the short highway.

Taxes

Taxes on transportation facilities have been of great importance both to the local government units and to the state.

Kinston Carolina Railroad during its last complete year of operation reported tax accruals amounting to \$2,611.15. County tax records in Duplin and Lenoir Counties reveal that the railroad paid \$1,652.14 to Lenoir County and \$373.39 to Duplin County, and \$200.00 to the Kinston School District. The State Franchise Tax for that year should have amounted to \$199.20. These are all of the taxes contributed by Kinston Carolina Railroad during one year. When highway transportation developed and finally replaced the railroad as the sole transportation medium, its contribution in taxes greatly exceeded that of the abandoned railroad.

The state gasoline tax now paid to the state for the travel on the parallel highway amounts to \$23,483.77, of which sum \$7,141.79 is contributed by trucks and buses. In like manner, Federal gasoline tax equals \$3,913.94. Of that, buses and trucks pay \$1,190.30.

Registration fees paid by owners of 2,450 motor vehicles in the townships through which the railroad passed equal \$33,301.90, of which trucks account for \$10,893.50, and of the latter, for-hire registrations contribute \$1,747.50. The franchise tax contributed by bus service in this area gives \$358.72.

Personal property taxes on motor vehicles owned in the territory yield \$5,253.17 a year.

Finally, taxes on automotive establishments along the highway paralleling the abandoned railroad total \$1,245.58.

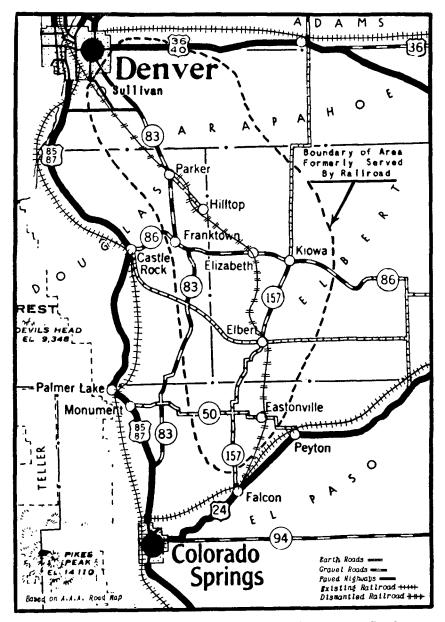
Thus the total of all taxes paid by highway transportation and auxiliary establishments dependent on it, amounts to \$67,600, or more than 25 times the railroad tax contribution.

Community Growth

The area had been increasing in population since 1900 and continued to do so after the railroad was removed. Business has increased greatly in Pink Hill. During the last year of the railroad it had only three stores and one garage. It now has five stores and three garages. Twenty new residences have been built. The area's population increased from 180 in 1929 to about 300 in 1938. In Beulaville, four new businesses have been established and five residences built since the railway withdrew. The paving of the highway brought in more business by increasing traffic through the community. Deep Run had four stores in railroad days; now has six.

Conclusion

Thus it is demonstrated that motor transportation has proven to be more than adequate to serve the transportation needs of the area. Highway vehicles give the best and cheapest service, partly because they deliver to the farm and store. They pay far more in taxes. Likewise, they provide a livelihood for many persons. None of the communities has been injured since the highway became their entire transportation agency. Business has improved and population has increased in all of the communities.



This section of Colorado was served by a Colorado and Southern branch from 1882 to 1936. Though it lacks first-grade roads, the area's transportation needs are being adequately met.

IN THE GREAT PLAINS OF COLORADO

SYNOPSIS

RAIL LINE ABANDONED: Colorado and Southern Railway Company; 65.16 miles in central Colorado; constructed 1881-1882; abandonment permitted July 4, 1936. COMMUNITIES LOSING RAIL SERVICE: Sullivan, Melvin, Parker, Hilltop, Elizabeth, Elbert and Eastonville. SOCIAL AND ECONOMIC EFFECTS: Although communities on the Great Plains lack paved highways, no injury has resulted from loss of a railroad. Highway transportation gives employment to a substantially larger number of persons; pays taxes that compare favorably with those of the railroad, and gives the locality more satisfactory and cheaper service.

THIS is the story of an agricultural area that escaped "economic death" when a railroad line serving it since 1882 was abandoned, leaving only unpaved roads as means of contact with markets and other outside places.

The region, extending into four Colorado counties, has actually made progress since the railroad was permitted to discontinue operations of an unprofitable line. If the community could have fallen back on a system of good roads for alternative transportation facilities, the subsequent good fortune of its six towns and broad acres could not be regarded as remarkable. But only gravel roads lead to the towns; and they are not even good gravel roads, having primitive alignments, steep grades, weak bridges and rough dusty surfaces.

Despite the handicap of indifferent road facilities, modern automotive equipment has functioned well, and the territory can be thankful for the availability of that equipment for its present improved state.

Town residents and farmers alike, of the area, now have faster, better and more convenient access to outside points than they had when the railroad line was in operation. Highway transport operations employ more than four times as many people as did the rail line, and their tax payments compare favorably with those of the railroad during the last years of its operation.

Description of Area

This district, which is over a mile in elevation, is on the Great Plains just east of the front range of the Rockies. It extends from Connors, in the outskirts of Denver, southeasterly 65 miles through the villages of Sullivan, Parker, Hilltop, Elizabeth, Elbert and Eastonville to Falcon, and crosses parts of Arapahoe, Douglas, Elbert and El Paso Counties. It is mostly rolling, grassy plains, but includes a part of the Black Forest. Only the northern portion is irrigated; the remainder being dry farmed. The main products are wheat, beans, live stock and corn. There is much dairying. The region has no manufacturing operations.

Railroad History

The railroad was built in 1882 as a main line from Denver to Pueblo when two other railroads already existed between those cities. Its main-line status ended in 1899 when the owners obtained trackage rights over the shorter parallel line of the Santa Fe with its easier grades. After 1900, the Denver-Falcon segment was operated by the Colorado and Southern Railway as a branch line, and the Falcon-Pueblo tracks were dismantled.

After about 1920, the Denver to Falcon branch made no profits. Following destruction of much of that section by flood, abandonment was permitted by the Interstate Commerce Commission in 1936. The eight miles of track between Denver and Connors was retained, however, as a spur.

Employment

During its last year 15 men were employed on the Falcon Branch. In contrast, present truck lines give employment to 33 men, while 36 more people are employed at garages, filling stations and gasoline distribution plants.

Taxes

The total tax paid in 1935 on the portion of the branch that was later discarded was \$19,039.01. The entire branch paid \$39,588.00 in taxes in 1934. In Colorado, tax assessments are determined from a five-year average of earnings, stocks and bonds and property of the entire railroad system. That total is then divided among local jurisdictions according to their main track mileages. Sparselysettled prairie counties, like these under study, thus are enabled to obtain more railroad taxes than urban counties with more railroad property value but less main line mileage. Motor vehicles in the former contributing territory of the Falcon Branch produced a total of \$28,267.05 in taxes in 1937, as tabulated below:

MOTOR VEHICLE TAXES

For-hire truck ton-mile taxes	3 1,990.76
For-hire truck registration fees	630.00
For-hire truck lines' property taxes	505.56
State gasoline tax	8,926.14
Federal gasoline tax	2,231.53
Federal lubricating oil tax	235.24
Property taxes on garages and gasoline stations	732.52
Automobile specific ownership taxes	6,435.30
Automobile registration fees (1,316 autos)	6,580.00
	28,267.05

F

The gasoline and oil taxes were computed from traffic on roads that most nearly parallel the abandoned railroad line. Traffic on these unpaved roads is comparatively light, and through traffic and tourist travel are practically unknown.

The taxation showing for highway transportation in this area, as compared with that in other localities studied, obviously is due to the lack of an improved highway to take the place of the railroad.

Service

(A) Passenger:

The railroad formerly operated both a passenger and a mixed train on a daily round trip. The passenger train was removed in 1929, but the mixed train continued to 1931 when a rail motor car was substituted. In 1933, only 377 passengers were carried by rail. Passenger service was discontinued some time before the line ceased freight operations.

The towns in this area do not have regular bus service. A company has a franchise, but does not plan to operate buses until the highway is paved or greater traffic demand develops. A bus line would not be profitable now, because fees and licenses would cost more than indicated revenue.

Residents of the area do not seem to miss passenger service. Since so few of them rode the train, they had acquired the habit of getting in and out by their own automobile or by riding with friends, truckers or mail carriers. Nearly every family has an automobile.

(B) Freight:

Common carrier trucks go daily to every railless town, and some communities have three truck lines daily to Denver giving overnight and over-day service, whereas, toward the last, the railroad ran but twice a week from Denver to Elbert only. Twelve common carriers and six contract carriers serve these towns.

Truck rates are required to follow rail rates in the state, and, as a result, all rates have increased since Falcon Branch ceased operations. Truck tariffs include pick-up and delivery, so shippers find the door-to-door haul cheaper by highway.

Trucks collect milk from the ranches and deliver it to the city much more rapidly and more conveniently than did the railroad. In general, present truck service is faster, more dependable, more flexible, and more convenient to the shipper than was the former rail service.

Community Growth

In spite of the lack of a first-class state highway, merchants, shippers, Chamber of Commerce men and railroad officials report that the communities have not been handicapped by the passing of the railroad. Business has increased, due largely to the ending of the drought. The Federal census shows that some of these communities have been gradually increasing in population, while others are decreasing. The voters' registrations and school census reveal that the trends established before the railroad ceased operations are continuing. Bank deposits are the same as in railroad days. The grain elevator at Elizabeth and the bulk gasoline plant at Elbert continue to operate and are now served by trucks.

Conclusion

The investigation shows that these communities, although lacking paved highways, have not been injured by the removal of the railroad. Matched with the results shown in other studies, however, it illustrates that they would be faring much better if they had a paved, trunk-line highway.

SYNOPSIS

RAIL LINE ABANDONED: St. Louis-San Francisco Railroad Company; 40.9 miles in northwestern Arkansas; constructed in 1887; abandonment permitted April 30, 1937.

COMMUNITIES LOSING RAIL SERVICE: Baldwin, Harris, Elkins, Durham, Thompson, Crosses, Delaney, Patrick, Combs, St. Paul, Dutton, Pettigrew.

SOCIAL AND ECONOMIC EFFECTS: Business remains practically unchanged and bank resources have increased slightly since highway transportation supplanted the railroad. Tax payments of the new transport method far exceed those of the old. Employment has increased slightly and residents now have a more convenient transportation system at no extra cost.

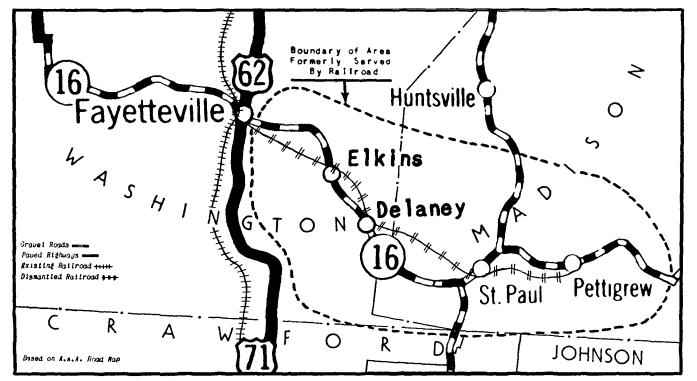
IN the Ozark Mountain region of Arkansas is a portion of the White River Valley which affords a unique opportunity to study the manner in which highway transportation is making possible discontinuance of unprofitable railway lines, with marked benefits accruing to the affected territory.

This area now has more satisfactory transportation service at its command. Furthermore, highway transportation and enterprises linked with it outdo the record of the rail line in volume of employment provided and total of tax money paid.

The territory under consideration here was the center of extensive lumbering operations in its earlier days, having been rich in hardwood timber. With the clearing of land during the years, increasing acreages have been utilized for agricultural activities. Among these are the production of tomatoes and beans for commercial canning and live stock and poultry raising.

Railroad History

A railroad line was built into the region in 1887, its primary purpose being the removal of lumber. It ran in a southeasterly direction from Fayetteville in Washington County to Pettigrew in adjacent Madison County, 41 miles distant. Ten small intervening communities, the majority of which had their beginnings as railroad stations, also were served by the St. Paul Branch, as the line was designated. Included among these railroad created communities were Elkins, Delaney, Combs and St. Paul.



When lumbering gave way largely to agriculture in this section of northwestern Arkansas, the St. Louis-San Francisco line serving it began to lose money. Abandonment of the line was authorized in 1937.

56

The branch prospered during a number of years as lumber companies did a flourishing business by making spokes and wheels for wagons and later for automobiles, until metals came into the picture.

With land being cleared and agriculture taking the place of lumbering two or three lumber mills have discontinued operations in recent years.

The usual fears of disaster arose with the first rumors of abandonment of the railway, permission for which was granted April 30, 1937.

Service

(A) Passenger:

A bus line makes one round trip daily serving all towns except Dutton and Pettigrew, with fares similar to former rail fares. From April, 1933, until it ceased operation July 31, 1937, the railroad made only three trips weekly.

A comparison of the bus schedules with those on which the railroad trains formerly operated shows marked time advantages held by the bus schedule.

	Railroad (1937)		Bus (1938)		
Between	Running Time	Fares	Running Time	Fares	
Fayetteville	in Minutes	in	in Minutes	in	
and:	(Monday, Wednesday, Friday)	Cents	(Every Day)	Cents	
Elkins	70	27	19	25	
Durham		35	27	35	
Delaney		53	46	60	
Combs		62	54	65	
St. Paul		70	64	75	

COMPARISON OF PASSENGER SERVICE

(B) Freight:

Although sawmills had left the territory, the largest lumber company in Fayetteville established a plant at the town of Crosses for the purpose of partly finishing hardwood billets to be made into spokes. This company, which feared it would have to discontinue business, now hauls lumber from the area by highway.

The timber which is now being moved out is partly second growth. Some of it formerly was inaccessible because of the absence of highways. Trucks now move farther into adjacent territory and haul out timber which formerly could not be moved by wagon because of the distances involved.

A large portion of the canned goods was shipped out by truck before the railroad left. Rates to various points in Missouri and Kansas are cheaper by truck than rail. Practically the entire output of 1936 was hauled by truck. A more recently established custom is for canners to sell goods on an f.o.b. plant basis. In that event, the buyer sends his own truck to the plant, with no difference in net price to the seller.

The low weight law in Texas prevents truck shipment of canned goods to that State, and transfer from truck to rail results in higher costs for southern shipments.

Poultry buyers purchase live poultry which is hauled by truck to Missouri cities and to Chicago. Truck rates on live poultry to Missouri points are slightly less than rail rates, and approximately the same on Chicago shipments. Trucks reach Chicago in 30 hours, —the train in 72 hours.

Live stock buyers pick up shipments at the farms and reach St. Louis or other Missouri markets within a few hours at a cost no greater than if shipments were made by rail. Farmers are enabled thus to take advantage of a favorable market for a few head of live stock.

For years, wholesale houses have delivered merchandise to commercial establishments within the area by truck, furnishing a much more convenient and flexible service than carload shipments, at no extra cost.

Two common carrier truck lines operate on the highway adjacent to the dismantled tracks. One furnished daily service and the other makes five trips weekly. Irregular route operators within the State are authorized to make deliveries through the section.

Truck rates are the same as those charged by the railroad at the time of its closing. Railroads operating elsewhere in the State have increased rates 10 per cent since the St. Paul Branch left the territory, while truck rates remain unchanged.

Employment

Railroad employees in the region when the line last operated consisted of a train crew of five men, one part-time station "caretaker," and an average section crew of eight. The train men and four of the section crew went to the main line. Those remaining operate small truck farms or are otherwise employed locally.

A sawmill, which employed 14, ceased operations at St. Paul. The canning factory at that station employs all available help for various periods, ranging from two to four months,—often 250 at the peak of the canning season. Other canneries hire from 100 to 200, dependent upon tomato production and length of season.

Five highway establishments are operated by their owners, with occasional part-time employment of others.

The two common carrier truck lines serving the territory regularly and the bus line employ one man each. Three hundred private trucks used in the area furnish at least part-time employment for a like number of men.

School population census for the section shows a decrease since 1930. However, population of Madison County declined steadily from 1910 to 1930. During all of that period, the railroad was furnishing regular service.

The only bank in the area, at Elkins, reports that resources have increased from \$164,778.47 on October 1, 1937, to \$177,133.99 on August 4, 1938.

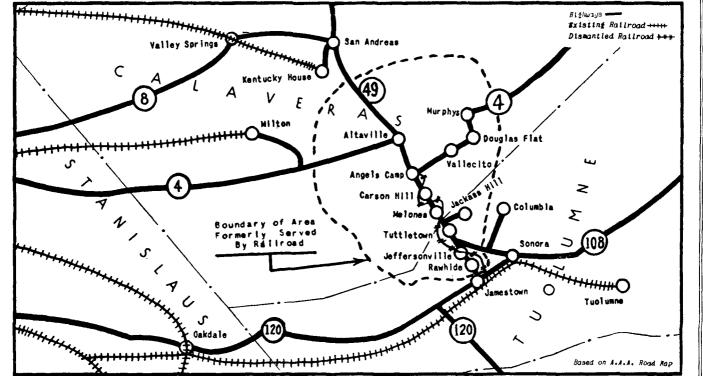
Taxes

During the four-year period, 1932 to 1935, inclusive, the average total taxes paid by the railroad was \$8,680.

There were 2,592 motor vehicles in the area formerly served by rail, which paid \$34,768.60 in registration fees, and \$17,808.93 in property taxes in 1937. The State tax on gasoline used by traffic on Highway No. 16, between Fayetteville and Pettigrew amounted to \$42,406.70, of which the passenger cars paid \$26,248.90, and buses and trucks \$16,157.80. The Federal gas tax of \$5,249.78 paid by passenger cars, and \$3,231.56 by buses and trucks, totaled \$8,481.34. Federal lubricating oil levy aggregated \$359.33.

Property taxes on highway establishments amounted to \$64.77. Thus, it is apparent, in contrasting tax contributions of the old and new transport methods, that highway transportation pays an aggregate of \$103,889.67, or nearly 12 times the railroad contribution of \$8,680.

A portion of the taxes paid by the railroad (in most communities 18 mills per dollar) went to local school districts. The State of Arkansas has an Equalization Fund composed of cigarette and other taxes, and present plans provide for reimbursing school districts for their loss of property taxes without increasing the property tax rate.



The Sierra Railway line into California's Mother Lode region was hit hard when mining and lumbering operations dwindled. It was abandoned in 1934. Highways now give the kind of service needed.

8

CALIFORNIA'S MOTHER LODE COUNTRY

SYNOPSIS

RAIL LINE ABANDONED: Sierra Railway Company; 19.05 miles in north central California; construction completed in 1902; abandonment permitted December 30, 1934. COMMUNITIES LOSING RAIL SERVICE: Angels Camp, Carson Hill, Melones and Tuttletown. SOCIAL AND ECONOMIC_EFFECTS: The scene of the

SOCIAL AND ECONOMIC EFFECTS: The scene of the country's most glamorous gold strike enjoys faster and more convenient transportation by highway than by rail. Highway transportation has increased employment substantially, and its tax contribution far exceeds that of the railroad.

THE nation went gold crazy in 1849. Migration to California became a stampede as thousands made the grueling trek by wagon trains over the Mormon Trail, the California Trail or the Overland Trail to the rich diggings along the Mother Lode. Other hordes came by water, then surged inland over the crude roads of the time, across California's great central valley and up into the Sierra foothills to the land of the big bonanza.

Roaring camps, containing many thousands of men and mules, sprang up overnight. They gradually developed into such towns as San Andreas, Angels Camp, Murphys, Carson Hill, Tuttletown, Jamestown, Sonora and Columbia, whose rough and ready beginnings are immortalized in writings of Mark Twain, Bret Hart and others.

These cities were built prior to the advent of railroads in the West and they were beyond the reach of navigable water. Highways, such as they were, remained the sole transportation medium until after the Mother Lode gold mining communities reached their maturity.

Railroads began to reach the area in the 1880's, but most of the old "forty-niner" towns have no railroads to this day.

Description of Area

A section of the Lode country that has experienced the complete transportation cycle from roads to railways and back to roads again was selected for detailed study. It lies in Tuolumne and Calaveras Counties, between Jamestown and Altaville and includes the villages of Tuttletown, Melones and Carson Hill, and the incorporated city of Angels Camp. This is a mining, lumbering and ranching country, there being very little irrigation or general farming.

History of Transportation

This area was served by the Angels Branch of the Sierra Railway Company of California from 1902 to 1934. Prior to that, numerous stage-coach and freight wagon companies operated here, including the Sonora-Milton line, the Sonora-Jackson route and the Stockton-Murphys line. During and since the railway days, the Mother Lode Highway (California No. 49) has served these communities and the Stockton-Murphys Freight Line and the Calaveras Transit Company have offered common carrier truck and bus service.

Completion of the railway took all the business from the southern end of the Sonora-Jackson stage-coach line, but this line continued to operate from Angels Camp to Jackson until 1910. The Milton-Angels Camp stages ran until about 1914. The Stockton-Murphys horse stages were replaced by motor stages in 1915 and the family that established it continues to operate the line.' Common carrier truck service has been continuous since 1926.

The railway branch line prospered during its first years. Much traffic originated in lumbering and gold mining. In later years, lumbering declined and many of the gold mines were shut down. The mines that remained ceased to ship out concentrates, for improved methods permit them to be treated at the mine. The cattle ranches ceased to originate freight for the rails and, with the advent of the automobile, people preferred the 52-mile trip to Stockton, the distribution center, rather than the 91-mile rail route.

Because of the geographic disadvantage, changed transportation methods and declining mining industry, the railway's profits dwindled to losses and it went into receivership in 1932. The Angels Branch had deteriorated physically and was badly in need of repair. The parent company could not afford to rehabilitate the branch. Abandonment was authorized December 30, 1934. Due partly to savings resulting from closing the branch, but largely because of increased revenues from the building of Hetch Hetchy Dam on another

¹ When locomotion of highway passenger coaches changed from horses to gasoline motors, the vehicles continued to be called stages in the western states. Even today, throughout the West, intercity motor buses are called stages. This probably is a result of the fact that in many parts of the West there was no period in which common carrier road passenger vehicles were not in use. The motive power changed, but the same kind of service was given and the bus was considered to be the same sort of vehicles; so the name "stage" continued.

part of the line, the railway company came out of the red in 1936 and the receivership ended in 1937.

Community Growth

When closing of the branch was first proposed, progressive citizens thought Angels Camp might become a ghost town like some of her sister gold-rush towns did when the mines closed. They feared loss of the line might cause mines and industry to shut down and population and business to decline.

Nothing like that happened. The two gold mines and a silicious greenstone mine at Angels Camp continue to run and employ men. The foundry at Altaville has taken on six more employees since then. The large gold mine at Carson Hill and Melones has increased its activities and has employed over 50 new men. This has caused Angels Camp to grow, since many of these workers live there and commute in private automobiles. The ice and soda works and the bulk gasoline plant on the torn-up tracks are still operating at Angels Camp. Bank deposits have increased; every dwelling and store is occupied. The annual Jumping Frog Jubilee, commemorating Mark Twain's "Jumping Frog of Calaveras," is still held, and record crowds attend each year.

Since the railroad withdrew, 22 new residences have been built in or near Angels Camp. In addition, three garages, three filling stations, a hotel, a bulk gasoline plant and a new bank building have been erected. Estimated from registrations, the population has increased 44 per cent since 1933, the last full year of railway operation. Population is estimated in California by multiplying voting registration by 2.4. Population changes in the whole area that contributed to the former railroad are shown in the following table.

POPULATION CHANGES 1930-1938

Voting Precincts	1930	1933	1936	1938
Rawhide	115	154	199	214
Tuttletown Melones	$\begin{array}{c} 240 \\ 55 \\ 55 \end{array}$	252 72	$\begin{array}{c} 274 \\ 194 \end{array}$	389
Carson Hill.	$\substack{125\\1,272}$	$\begin{array}{c} 122 \\ 1,334 \end{array}$	182 1,608	· · · · · · · ·
Altaville Vallecito	$\begin{array}{c} 384 \\ 173 \end{array}$	336 163	$\begin{array}{c} 569 \\ 254 \end{array}$	
Douglas Flat Murphys	$\begin{array}{c} 115 \\ 540 \end{array}$	98 348	142 694	
Big Trees	350	70	139	
Totals	3,369	2,949	4,255	

Employment

The town of Angels Camp lost five railroad employees and their families, for when the branch closed they were taken to other points on the Sierra Railway. New motor vehicle establishments that have opened up in the town since the railroad departed employ 30 people.

Total employment on the whole rail branch was 15, while present for-hire motor transport uses 21 men, of whom ten work for the common carriers. In addition 62 persons are employed at automobile and tourist establishments on the Mother Lode Highway adjacent to the dismantled tracks.

Service

(A) Passenger:

The bus line makes two round trips daily from Murphys to Stockton, passing through Angels Camp, and in the summer three additional round trips per week from Angels Camp to Lake Alpine. The Angels Camp to Stockton run is made in two hours and the charge is \$2.20.

The railway offered one round trip daily from Angels Camp to Jamestown, a small village. It took six hours and two changes of trains to reach Stockton. First class rail fare was \$2.20, and coach fare was \$1.87.

After the railway closed, the star route mail carrier offered a daily round trip for express and passengers along Highway 49, parallel to the railroad between Angels Camp and Sonora, three miles from Jamestown. That service stopped in May, 1938; at this writing, transportation service to the lesser points on the old railroad line is furnished by contract truckers. Residents interviewed do not seem to mind since each family has a car, and they are only a short distance from good regular scheduled transportation service at either Jamestown or Angels Camp.

(B) Freight:

The Stockton-Murphys truck line offers a daily round trip through Angels Camp, using the short, direct highway, which enables shipments to arrive one day sooner from Stockton than by the former circuitous rail routes. At Oakdale, the Sierra Railway had to transfer goods to the Santa Fe or the Southern Pacific for shipment to either Stockton or San Francisco, which often entailed delays. Trucks offer overnight service from San Francisco to Angels Camp—something the railroads never attained. Present truck rates are higher than were rail rates the last year of operation. However, they average lower than the earlier rail charges, the collection and delivery is thrown in, thus eliminating the former drayage or delivery charge at both ends of a shipment.

Taxes

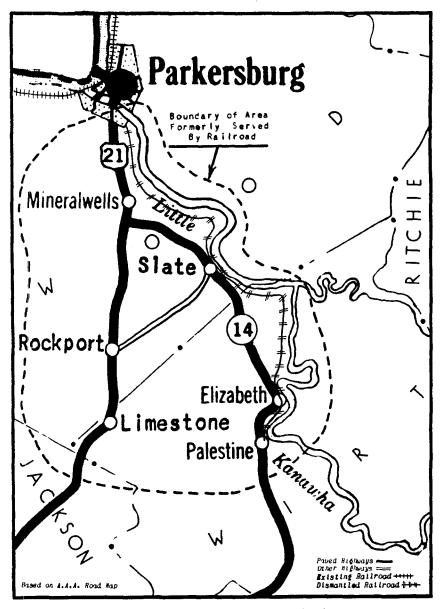
While this branch line existed, railroads paid no property tax to the counties, so there was no local tax loss at all. Short line railroads paid a public utilities tax of $5\frac{1}{4}$ per cent of gross receipts to the State which came to \$474 for the Angels Branch.

The bus and truck lines' 1937 gross receipts tax of $3\frac{1}{4}$ per cent came to \$1,237. The 75 trucks and commercial motor vehicles in the area paid the State \$847 in license fees and property taxes, while the 1,045 passenger cars paid \$7,129. In 1937, the State tax on gasoline consumed by traffic on the Mother Lode Highway adjacent to the former railroad between Angels Camp and Jamestown came to \$9,131; the Federal gas tax brought in \$3,044; and the Federal lubricating oil levy totaled \$152. Automotive and tourist establishments paid the counties \$1,077 in property taxes and the city of Angels Camp obtained \$436 from them for business licenses.

Contrasting the tax contribution of the old and new transport system reveals that highway transportation annually pays a total of \$23,053, or forty-eight times the \$474 formerly paid by the railway.

Conclusion

Thus it is noted that present ranching and mining methods do not require railroad service as an auxiliary; that modern highway transport is much faster and more convenient than the railroad service had been; and that highway transportation in the region under study outstrips the tax-payment figures and employment totals recorded by the railroad line when it was in operation. With those facts in evidence, there comes the realization that loss of railroad service really aided the Angels Camp area, with abandonment of the rails also producing opportunity for discontinuance of a money-wasting enterprise.



Highway transportation supplanted rail service in this western section of West Virginia when the Little Kanawha Railroad Company's line was abandoned in 1933 after a succession of "red ink" years.

ALONG WEST VIRGINIA'S HIGHWAY NO. 14

SYNOPSIS

RAIL LINE ABANDONED: The Little Kanawha Railroad Company; 20.98 miles in western West Virginia; constructed in 1898; abandonment permitted November 9, 1933.

COMMUNITIES LOSING RAIL SERVICE: Placid Station, Slate, Elizabeth, Palestine and Owensport.

SOCIAL AND ECONOMIC EFFECTS: With the development of highway transportation, the owners of a railroad were enabled to dispose of an unprofitable, debt-producing property. Employment has increased substantially, and taxes paid by the new transport system far exceed those of the old. Mineral development is not impeded and residents are provided more economical and convenient transportation.

A STUDY was made of the results of the withdrawal of 21 miles of the Little Kanawha Railroad extending from Placid Station near Parkersburg, through Elizabeth and Palestine to Owensport in portions of Wood and Wirt Counties, in the western part of the State of West Virginia. Elizabeth and Palestine are the only towns on the line, the other stations are farming communities—not even villages.

The major part of the territory, although hilly, is fertile farm land, used principally for live stock production. Corn and oats are also grown, but the greater part is consumed by live stock locally. Lumbering formerly was the main industry, but the forests have been largely depleted.

Gas and oil production in the locality has witnessed a series of ups and downs since 1865. The latter part of the nineteenth century saw numerous small corporations and syndicates formed to drill for oil and gas. Bolstered only with divining rods, these prospectors more often than not "went broke." A well that produced in commercial quantities was the rare exception. More recently, through scientific use of geologists' surveys and with sounder financial backing, drilling within the area has been generally more successful. In 1938, several good producing gas wells have been brought in east of Elizabeth in Wirt County.

The Little Kanawha River is navigable from the Ohio to Elizabeth and beyond, but Elizabeth and Palestine shippers practically never use boats. There is no common carrier boat line, but some of the oil companies use the river for private transportation. Formerly shipments were transferred from trains to boats at Owensport for transportation farther upstream.

Railroad History

The plentiful lumber resources in the area in 1898 could have provided the only economic justification for construction of the railroad at that time. With the decline of the timber industry, it became a general service line. From 1901 to 1918, a period when highway competition was negligible, the railroad had a debit balance of \$176,876.34. Every year since 1907 shows a debit balance.

The Baltimore and Ohio obtained control of the Little Kanawha Railroad in 1917, and from that time until its abandonment the Baltimore and Ohio operated the line for account or in the interest of the Little Kanawha Railroad Company.

At the abandonment proceedings before the Interstate Commerce Commission, the Baltimore and Ohio submitted information showing total revenue and operating expenses of the line for the five year period preceding the hearing (1928-1932 inclusive). A total deficit of \$13,904.44 for the five year period was shown and the record indicates that future loss would have been greater if operations had been continued. Discontinuance of service was authorized on November 9, 1933.

Various aspects of community life and transportation are discussed in the sections below to compare conditions within the two transport eras.

Service

(A) Passenger:

A paved highway, West Virginia No. 14, adjacent to the railroad was completed in 1931.

Atlantic Greyhound Lines operate motor buses from Spencer to Parkersburg through Elizabeth, making two round trips daily. The railroad was offering service twice a week only, by mixed train. The running time of the buses between Parkersburg and Elizabeth, the principal towns involved, is 55 minutes—the train time was two hours. That bus fares are appreciably cheaper is indicated by the comparison which is presented in the table on the next page.

	Railroad	(1933)	Bus (1938)	
From	Distance	Fares	Distance	Fares
Parkersburg	in	in	in	in
To:	Miles	Cents	Miles	Cents
Slate	14.5	53	12.6 20.0 23.3	35
Elizabeth	26.5	96		50
Palestine	29.7	108		65

COMPARISON OF PASSENGER SERVICE

(B) Freight:

Three common carrier truckers now operate to points formerly served by the railway. In addition, there are several irregular route common and contract truckers in Parkersburg prepared to render service on demand.

On hauls between Elizabeth and Parkersburg, shipping rates per 100 pounds for cattle were cited by local residents as having been eleven cents by rail as compared with the present rate of seven cents by truck. Corresponding rates on general merchandise were given as fifty cents by rail and fifteen cents by truck. In addition, the present freight service, with store-door delivery, is faster, more frequent, and more convenient.

Due to the exemptions for smaller trucks as provided in the West Virginia 1937 Carrier Regulatory Law, little attempt is made at regulating the transportation of freight by motor carrier. Consequently, truck rates have not been filed and no intrastate tariff established. However, truck rates on longer hauls are comparable to rail rates.

During several years prior to cessation of railroad operations, the major part of live stock produced in the section moved to Parkersburg, West Virginia, Pittsburgh, Pennsylvania, and various Ohio markets, by truck, at no higher rates than rail tariffs.

Since most locations are far from any rail terminal, oil and gas well supplies and drilling equipment obviously must be moved by motor transportation. This method was used almost exclusively even while the railroad furnished service. Most of the oil and gas equipment sold by a Parkersburg manufacturer is on an f.o.b. basis. When equipment is delivered by common carrier truck, rates are approximately the same as rail rates, but truck service is much faster and more convenient because of delivery to the wells.

Practically all outgoing natural gas and crude oil moves by pipe line.

Employment

At the time of the railroad's withdrawal, no employees were directly attached to the portion that was abandoned, except the station agent at Elizabeth. He lost his position and is now employed at one of the factories in Parkersburg, where he maintained his residence even when he was working for the railroad. No one else was laid off as a result of the closing, although some railroad employees, who also resided in the Parkersburg district, were transferred elsewhere.

Development of highway transportation in the meantime is giving full-time employment to at least 23 persons in garages, filling stations, repair shops and dealers' establishments in the territory along the paved highway, West Virginia 14. To these must be added four men employed by the common carrier truck lines and one driver of the bus. A conservative estimate shows 40 men are employed on the 40 private trucks used in the area.

A soft drink bottling plant, recently located on Highway No. 14 outside of Parkersburg, employs eight driver-delivery men.

Taxes

The railroad paid the state a public utility tax of \$1,935 for 1933 on the basis of its operations, now discontinued, in Wirt and Wood Counties. The larger portion of this amount, \$1,792, reverted to the counties.

In addition, the railroad paid to Wirt County an average annual tax of \$92 from 1925 to 1933, inclusive. The validity of this tax was doubted seriously, and it was not assessed or collected in Wood County.

State taxes paid by the bus line, on the basis of \$.0237 per vehicle mile, total \$519 annually, with \$152 going to counties and \$367 to the state.

Gasoline taxes paid by other motor vehicles amount to \$14,851. Registration fees are estimated at \$1,055 for the 52 registered trucks in the vicinity, and \$3,300 for 300 passenger cars.

State licensing of automotive establishments yields \$25, and the state's share of personal property taxes is \$82.

Counties receive \$152 of the public utilities tax paid by the bus line and \$12 collected from the Railway Express Agency. Their share of motor vehicle property taxes yields \$304. An estimate of the portion of personal property and real estate taxes on automotive establishments received by the counties in 1937 is \$987.

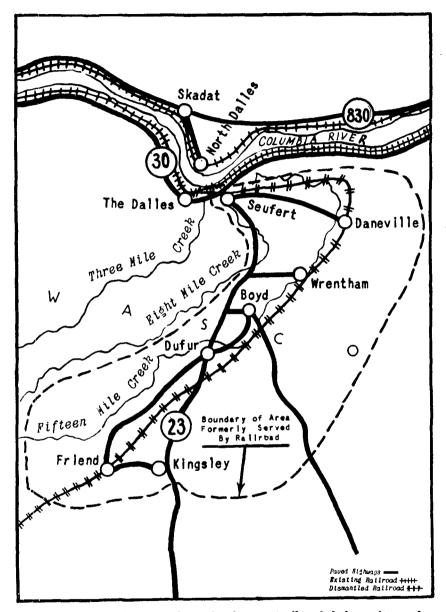
Annual Federal gasoline tax on vehicles using the highway immediately adjacent to the abandoned line amounts to \$2,970, and estimated taxes on tires, tubes, chassis, etc., account for \$365. Federal taxes thus aggregate \$3,335.

The total of tax revenues from highway transportation is \$24,470 or twelve times more than the average annual payments of approximately \$2,000 made by the railroad. In comparing these tax contributions, care has been used in confining both sets of figures to the same identical territory.

The only bank in the locality, at Elizabeth, closed in 1933. It has reopened, however, since the railroad's withdrawal. Deposits have increased nearly \$15,000 within the past two years.

Conclusion

Without presuming to pass judgment on the question of whether railroads or portions thereof should be abandoned, developments since this line ceased operation in the particular section are quite obvious. Due to the new highway transportation age, the owners of the railroad were enabled to abandon an unprofitable, debtproducing property because public convenience and necessity no longer required its continuance. Mineral development is not retarded or impeded, and residents of the area benefit by faster, more convenient and less expensive transportation.



Wasco County, Oregon, where the Oregon trail ended, has witnessed a complete "transportation cycle," returning to use of highways following abandonment in 1935 of Dalles & Southern Railroad line.

A TRANSPORTATION CYCLE IN OREGON

SYNOPSIS

RAIL LINE ABANDONED: The Dalles & Southern Railroad Company; 41.79 miles in northern Oregon; constructed in 1908; abandonment permitted September 30, 1935. COMMUNITIES LOSING RAIL SERVICE: Boyd, Dufur and Friend. (Also The Dalles, still served by the Union Pacific System). SOCIAL AND ECONOMIC EFFECTS: Highway transportation has substantially increased employment. It far outdoes the railroad in payment of taxes. Residents are provided a faster, flexible

and more economical transport medium. Business conditions are relatively the same and population has slightly increased.

R OADS have been of paramount importance to Oregon throughout her history. She largely owes her existence to the Oregon Trail—a 2,000-mile long high road blazed from Missouri to the Oregon country in 1842. During several generations, this artery carried a stream of immigrants and commerce from the East to the newly-opened territory, the extent of the movement being unprecedented. At The Dalles and Oregon City traffic was transferred from wagons to river boats for transportation farther west.

Completion of transcontinental railroads in the 1870's killed the Oregon Trail commerce; but several freight wagon and stagecoach companies continued to operate over the pioneer trails and military roads of Oregon even into the twentieth century until they, in turn, were displaced by the building of railroad extensions. Therefore the "dark age" in highway history—between the building of railroads and the attainment of improved roads and automobile use—lasted only twenty years in certain parts of Oregon, whereas in the East it covered a span of eighty or ninety years.

Description of Area

An area that had experienced the complete transportation cycle from highway to railroad and back to highway again was selected for this study. The region is in Wasco County and extends from the Columbia River at The Dalles southward for thirty miles, including the towns of Boyd, Dufur and Friend, and surrounding territory. Here the wooded foothills of the Cascade Mountains blend into prairies of the eastern Oregon wheat belt. The main industry is dry farming of wheat, but along the creeks irrigation makes general farming possible.

History of Transportation

During the first highway era, 1842 to 1908, this locality was served first by the Oregon Trail, then by The Dalles-Canyon City freighter and stagecoach road. The Great Southern Railroad operated here from 1908 to 1935. In the new highway transportation age, The Dalles-California highway (Oregon No. 23) traverses the area, and the Mt. Hood Stages, (passenger), Consolidated Freight Lines, and The Dalles Freight Line offer motor transportation service to the residents. Consolidated Freight Lines is a common carrier of bulk wheat only. The Dalles Freight Line is a common carrier operating in regular schedule.

After the Oregon Trail had poured its flood of settlers into the vast Oregon country and the pioneers had settled down to building an empire in the wilderness, a great trade developed between The Dalles and Canyon City. Wheat and minerals from the interior were brought down to The Dalles in a lumbering procession of 10horse wagons. Manufactured goods were taken back on the return trips. Many companies pursued this glamorous trade from 1862 to about 1908. Traffic was carried down the Columbia by steamboat, with a six-mile portage around Cascade Rapids. "Old-timers" relate that the toll collector at Sherar's Bridge over the Deschutes River in boom days had to use two large water buckets to carry home his daily receipts in silver dollars.

The Union Pacific Railroad was built along the south bank of the Columbia in 1883, but the through freighters and stagecoaches operated on the Canyon City road until 1905. In the latter year, however, the Oregon-Washington Railroad and Navigation Company of the Union Pacific System tapped that traffic at its source and put them virtually out of business.

Wheat from Boyd and Dufur continued to reach The Dalles by wagon over this well-worn trade route until 1907, when the Great Southern Railroad (later The Dalles and Southern) was built along circuitous Fifteen Mile Creek from those towns to The Dalles, where it connected with the Union Pacific. Even though the railroad was thirteen miles longer, it took most of the business from the highway because of superior service.

The railroad prospered and gave good freight and passenger service for fifteen years. It extended its line to Friend in 1913. But, due to inherent disadvantages, it soon fell upon unhappy days. Its terminus, Friend, was never more than a hamlet, and has been practically a ghost town since the closing of a sawmill there twenty years ago. Potential lumber resources beyond Friend in the Mt. Hood National Forest have never been developed. The main industry around the other stations was wheat growing. At each siding were large elevators furnishing the line its principal commodity—wheat.

In 1923, State Highway No. 23 was opened over a route ten miles shorter than the railroad, but three miles longer than the wagon road. The increased use of automobiles and the gravelling of farmto-market roads had killed the railroad passenger business by 1933. Much of the freight went back to its original thoroughfare, the highway, but by motor truck this time. Common carrier trucks first started operations in competition with the railroad in 1924. Motor stages were first started in about 1909, and buses or jitneys of one description or another were operated in competition with the railroad throughout its life.

From 1923 to 1933 the railroad failed to pay Wasco County its taxes, so the county officials instituted a tax suit and foreclosure. In 1933, the brother-in-law of the founder's son bought it at a sheriff's sale, changed its name to The Dalles and Southern, and tried to improve service.

Shipping and marketing methods had changed so much because of the automobile that people had gotten out of the habit of using the railroad. It hauled nothing but wheat and only about half of that. Finally, in 1936, it ceased operations and the county compromised on the delinquent taxes due, eventually receiving \$35,000 from the sale of the rails for scrap iron. The rail depot in The Dalles became a garage and filling station. The return back to highways was complete!

When abandonment of the line was first proposed, the usual hue and cry was heard about what a calamitous thing it would be for the three towns to be left without rails—Boyd, Dufur and Friend—or for the whole county in general.

What really happened afterwards?

Service

(A) Passenger:

The auto stage line offers one round trip daily, just as the railroad did. Passenger travel is over twice as fast, one-third shorter and

THE HIGHWAY, THE MOTOR VEHICLE AND THE COMMUNITY

54 per cent cheaper by bus from The Dalles to Dufur than it was previously by rail.

	COMPAR	ISON OF I	PASSEN	JER SERV	CE				
	Ra	ilroad (1935))	Bus (1938)					
From	Running	Distance	Fares	Running	Distance	Fares			
The Dalles	Time in	in	in	Time in	in	in			
To:	Minutes	Miles	Cents	Minutes	Miles	Cents			
Boyd	$104 \\ 120 \\ 165$	27	108	35	17	55			
Dufur		30	120	40	20	55			
Friend*		41	168	58	28	85			

COMPARISON OF PASSENGER SERVICE

*The bus goes to Friend Corner, five miles from the village.

About 360 passengers per year ride the bus to or from Dufur, whereas no one rode the railroad after 1931.

(B) Freight:

Several farmers' grain elevators were left stranded without rails, and it was feared that the large investments in those structures would be lost. Trucks now haul bulk wheat from them to the seaboard just as dependably and at no higher rates than the railroad did. The elevators are used just as before.

The common carrier truck line serves Boyd and Dufur three days a week and Friend once per week, whereas the railroad ran on call during its last years. The average present truck rate is over ten per cent lower than the rail rate was. The rail tariffs shown below are from station to station. High drayage charges were ordinarily added to get shipments from the depot to the door. Truck rates include pick-up and delivery.

COMPARISON OF FREIGHT RATES (Class Rates in Cents Per 100 Pounds)

	Railroad (1935)		Trucks (1938)			
From The Dalles To:	Class 1	$\begin{array}{c c} Class & Class & Class \\ 1 & 4 & 1 \end{array}$		Class 4	Per cent of Decrease	
Boyd Dufur Friend	45 50 71	$27\frac{1}{2}$ 31 42	33 44 50	20 26 30	26.9 13.6 29.2	

Commodity rates and through rates to Portland are also much lower at present by highway. Wheat is trucked from Dufur to The Dalles for \$1.00 per ton, whereas the railroad charged \$1.30. Seven contract carriers serve the area.

الحي منكا

Taxes

Wasco County receives no more taxes from the railroad, but it became accustomed to getting along without them during the delinquent years. After the tax settlement, the sum received from junking the line was divided between those years, and the 1935 allotment was \$1,959.17. Of this, \$1,476.70 went to the county and \$447.47 to the State as property tax. The State also received \$35.00 in revenue and corporation fees.

The state tax on gasoline consumed by traffic on highways that parallel the disbanded railroad between The Dalles city line and Friend amounted to \$48,913.30 in 1937, and \$16,346.75 of it came from buses and trucks. The Federal gas tax brought in \$9,782.66, of which \$3,269.35 was from trucks and buses. The Federal oil tax amounted to \$423.61. The forty-seven trucks in the area outside of The Dalles paid about \$470.00 in registration fees, while the 234 passenger cars paid \$1,170.00. License, corporation and mileage taxes applicable to the bus and truck lines' operations in that area totaled \$618.08. Garages, filling stations and auto tourist establishments contributed \$311.72 in property taxes.

Thus, for comparison, it is seen that trucks and buses pay \$20,704.18 in taxes, whereas the railroad had supplied only \$1,959.17. Highway transportation's total tax contribution in the area for the one year was \$61,689.37-31 times that of the abandoned railway.

Employment

In its last years the railroad employed only six people, and they all lived in The Dalles. Earlier a number of railroad employees lived in Dufur and Friend.

For-hire trucks serving the railroad's former contributing territory employ eight men full-time and two part-time. Bus line operations in the area give full-time employment to one worker and parttime to another. Garages, service stations and tourist enterprises employ seventeen persons. Highway transportation thus provides full-time work for twenty-six people and part-time work for three more.

Community Growth

The annual school census reveals a three per cent increase in the number of children of school age in all the school districts of the area, exclusive of The Dalles, indicating that the removal of the railway caused no decline in the population.

CHECKED

THE HIGHWAY, THE MOTOR VEHICLE AND THE COMMUNITY

Business is as good as ever in Dufur and bank deposits have increased since the rails were removed.

The Dalles Chamber of Commerce took no position against the rail line's closing, but preferred to let economics take a natural course.

Years ago there was much boat traffic on the Columbia operated in conjunction with wagon freighters. By 1910, all the boat lines had disappeared because of superior land transportation. In 1931, however, boats began to come back. Now there are coordinated truck-boat shipments of wheat and other bulky commodities. Recent Columbia River improvements have made The Dalles a seaport and the Chamber of Commerce foresees a great transport future for it through the joint use of highways and river navigation. Trucks and steamboats and their combined through rates make a transportation combination that seemingly is wholly satisfactory.

The passing of the railroad did not adversely affect The Dalles business, for the highway penetrates farther into the hinterland and brings in traffic and trade that the railroad never attracted. Population of this city has been growing since 1900, and has continued to increase since the abandonment.

Conclusion

Thus it is seen that the highway and the motor vehicle have given Oregon and Wasco County more total taxes than the railroad formerly paid. The residents of the area get faster, more convenient and less expensive transportation. Thanks to the new highway age, the owners of the railway were permitted to abandon a property that was unprofitable and debt-producing because public convenience and necessity no longer required its continuance.

SUMMARY

THAT there is nothing constant except change is again demonstrated in a review of the history of transportation in the United States. From roads to canals, to railroads, to roads again, is a complete transport transition or cycle. This cycle does not mean that any one method of transportation in these days is destined for complete elimination.

A satisfying feature of the change through the decades is that the present stage of the cycle is occurring in a nation that has grown to be so great geographically, agriculturally and industrially, and has developed such definite social trends of travel, recreation and education, that there appears to be assurance the present era of competitive methods of transportation will result neither in a monopoly of transportation by any one form of transport, nor in an elimination of one or another efficient transportation facility with which the nation is now provided. In this, the present change differs from former phases of the transportation transition wherein a new form of transportation, given time, completely eliminated older and competitive transport methods because, largely, of insufficient population and commodities to be carried.

People and products now are abundantly present to sustain the competitive forms of transportation operating if each method does the work it is best suited to do. In a progressive civilization such as always has existed in the United States, the old order in transportation or otherwise is constantly changing, yielding gradually to new methods. This is a healthful situation and guarantees that the people will be served adequately in transportation matters if they continue to have the privilege of choosing the type of transport furnishing the required service at costs based on that particular service.

Great difficulty is experienced by most citizens in being able properly to evaluate the transportation transitions of this era. They see branch railroad lines struggling for existence and know, either technically or in a general way, that these lines and less-thancarload loadings are now, and for many years have been, unprofitable to railroads. Citizens do not see so clearly that the highway and the motor vehicle are, in the main, providing services which relieve the railroads of long-time unprofitable services, by doing which a contribution is made to the perpetuity of railroad operation in the nation.

The able executives who are now in charge of the nation's railroads inherited certain unprofitable mileages for which they were not originally responsible in the least. The voluntary elimination of these mileages by abandonment surely would aid in the efficient and economical management of the roads.

This study of the highway, the motor vehicle and the community, contains information which it is thought will be helpful in assisting the average citizen, as well as the technician, to understand the entire transportation problem of the nation. No effort has been put forth to show either superiority or inferiority of one method of transportation as compared to another. The effort merely has been to demonstrate that highways can and do adequately provide all required transportation facilities in any community when circumstances demand.

To show the efficiency of highway transportation at the present time, it has seemed desirable to study communities formerly supplied with another medium of transportation, as well as to investigate the situation where a community has been, from the beginning, wholly dependent upon highway transportation.

In pursuing the study it soon became obvious, that there was, and still is, desperate need for railroads to discontinue operation of certain unprofitable lines. Many of these were general purpose lines profitable in their earlier days. Some few were developed by bond salesmen and professional promoters rather than by practical operators and experienced engineers. Others were constructed without adequate surveys to determine whether they ever could be profitable. Still others were special purpose lines built to serve areas dependent on natural resources since exhausted.

The study seems to disclose that the highway and the motor vehicle are now available to preserve, advance and protect the economic and social welfare of all communities dependent wholly upon highway transportation.

From this point of view the study appears to lead to the conclusion that the highway, with its motor vehicle, may properly be considered as an aid to the railroad in the present effort to re-establish the latter method of transportation on a paying basis.