COLORADO'S FISCAL CHOICES

DURING THE GREAT DEPRESSION

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Abstract

The Great Depression was a tough time of economic downturn throughout the United States. Each state responded to this time period differently. Throughout this thesis, I will examine the fiscal choices of the state of Colorado specifically from 1929 to 1940. I will provide a comprehensive overview of the Colorado state government's choices in their attempt to revitalize the state's economy and provide relief to the people of Colorado throughout the Great Depression. I will analyze the taxes and spending choices outlined in state record and session laws, focusing specifically on the key industries of Colorado.

The paper uses two major tools to explain these phenomena. The first is a series of narratives, which explain the social and political climate in Colorado from 1929-1940 throughout changes in leadership. The second is a quantitative analysis. I will identify key variables and then explore their causal relationship with Colorado's per capita state tax revenue. I will then compare the revenue and expenditures of Colorado's bordering states for comparison and run regressions to identify nationwide trends.

Intro

The effects of the Great Depression hit the United States hard, affecting each state's economy uniquely. By 1930, the value of the dollar was increasing through deflation, unemployment was rising at an unprecedented rate, and the economy was spiraling into the worst economic downturn in United States history. Once President Franklin Delano Roosevelt took office in 1993, he developed a program called the New Deal, a revitalization effort that implemented several programs in the states to benefit the destitute and reshape the nation's economy.

Colorado was hit especially hard in the early years of the Great Depression. Thousands of jobs were lost, which increased unemployment and decreased consumption in the state. The state economy was in serious decline, showing virtually no signs of new growth or stability. The key industries of liquor and mining were hit especially hard. Prohibition forbade any production, manufacture, or sale of alcohol, which impacted jobs in brewing, manufacturing, and even bars and saloons. Mining was also hit hard as the value of silver and gold decreased, both of which were plentiful natural resources in Colorado. Banks closed, the value of money increased through deflation, and many people lost their jobs in every sector as aggregate consumption decreased.

To address these problems, President Roosevelt's New Deal sought to provide aid in a number of ways. The Colorado state government cooperated with the federal government by providing supplemental aid to many New Deal programs and even implementing several initiatives of their own. Through emergency relief efforts, the destitute and unemployed were provided with food and shelter to survive. Thousands jobs were also created, particularly through the Public Works Administration, which provided government funding to employ people and build projects that would benefit the public, such as dams and highways.

The Colorado state legislature also adopted policies to rebuild Colorado's economy. Among them was the implementation of dozens of new taxes to be spent on state growth activities, creating an unemployment relief committee, building employment agencies, and matching federal grants for restoration programs, among many others. Through slow natural recovery and the combined efforts of the federal and state government, the economy of Colorado was able to provide jobs to those who had become unemployed, partially restore the value of silver to benefit the mining community, and slowly rebuild the economy of Colorado.

I. Unemployment Relief Policy

Throughout the early 1930s, the effects of the Great Depression were beginning to be felt across the country. Colorado first felt its impacts in 1931, when unemployment was skyrocketing, profits were falling, and businesses began to close. During the Great Depression era, Colorado had several leadership changes, including five governors from opposing political parties. Some of these leaders welcomed the sweeping expansion of government throughout President Roosevelt's term, while others condemned it. The strongest voice for expanded government in Colorado during the era was Edwin C. Johnson, Colorado's 26th governor.

Colorado's 26th Governor, Edwin C. Johnson [4]

The entire country was hit especially hard in 1931 and 1932, the same time that Democrat Edwin C. Johnson was campaigning for governor of Colorado. As banks and businesses closed, many people lost their entire life savings, leaving them without a way to support themselves and their families. Even those who were lucky enough to be employed at this time were earning on average less than $900 per year (1967 dollars), down from over $1,100 in 1929. Figure 1 illustrates the dip in income of the people of Colorado, as well as several neighboring states. The desperation of the people was growing every day, with many losing faith in any hope of recovery.

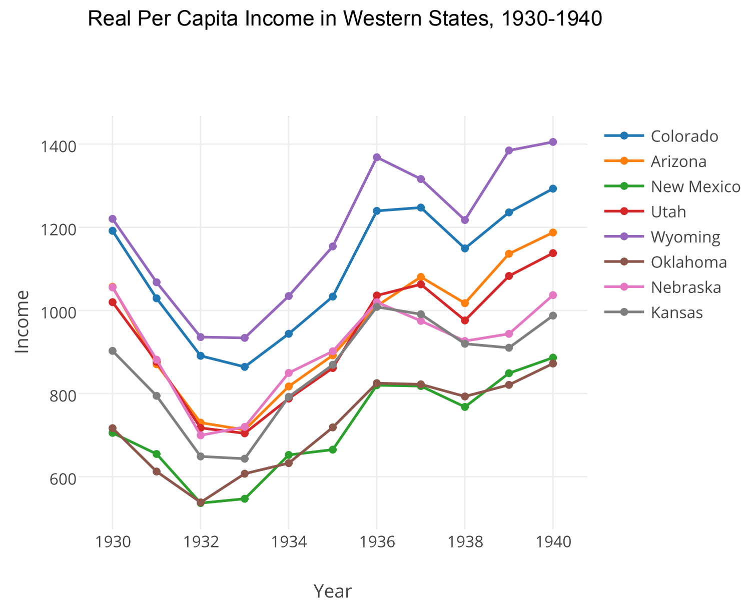


Figure 1

Edwin C. Johnson’s campaign focused on restoration and employment through the expansion of government. His message promised that the state would take care of the people in their time of need. For example, Johnson was the first to propose a general sales tax in Colorado. He intended to use the revenue from the sales tax to help the unemployed and their families through the creation of soup kitchens and formal work programs. Under Johnson’s work program, the sales tax would cover the cost of incomes so that the people did not have to live on welfare. This was the first proposed solution in Colorado’s political landscape that would allow people to be both independent and self-sufficient and had widespread support from the Democratic Party. Johnson’s innovative job creation policies helped to restore the faith of the people of Colorado, which provided him with a huge support base.

However, Johnson received some criticism from the other side of the aisle. For example, a huge controversy of Johnson's administration was that he was racist and therefore implemented many policies against minorities, especially migrant workers. In 1936, for example, Johnson began to deport many migrant workers under the "bum blockade" of 1936 [4]. During this time period, Johnson convinced many of his followers that he was saving their jobs by deporting those who were not native to the United States or Colorado. Johnson's job creation policies, despite controversial and possibly racist, made him extremely popular among his constituents, yet very polarizing among Republicans.

Edwin C. Johnson was in good company, however, because during the 1930s, the Democratic Party was the large majority in Colorado. In 1932, Colorado had elected three Republicans and only one Democrat to serve in the U.S. Congress, but by the election in 1934, Colorado had replaced all the Republicans with four Democrats. For the office of governor, there were no Colorado Republicans in office from 1929-1939. The Democrats, who favored government intervention to handle the country's economic crisis, largely controlled the state.

Among the policies and programs that the state introduced to expand state reach and address unemployment relief were:

<u>The Creation of the Colorado State Relief Committee</u>

On May 11th 1933, Colorado's state legislature identified the need to create the Colorado State Relief Committee through a joint resolution. They approved an appropriation for the establishment of the committee on April 10th, 1933, which was tasked with providing relief to Coloradans from "the hardships and suffering caused by unemployment and destitution." This temporary committee was appointed by Governor William Adams in 1935, under the Emergency Relief and Construction Act of 1932, and was to be funded until the end of the emergency in Colorado at the discretion of the governor. The committee consisted of seven people, who served without pay (except the director). Their duties included cooperating with the federal government and "receiving, allocating, and dispersing all funds" to the poor. [14]

The Creation of the Colorado State Unemployment Committee

The Colorado state government developed a committee to investigate the causes of unemployment in Colorado in 1932 and to report back about the feasibility of unemployment insurance to help the rising level of unemployed in the state. This committee was to consist of five people to be appointed by the governor. The committee members served without pay. [13]

The Creation of the Employment Agencies

On June 6th, 1933, the federal government passed the Wagner-Peyser Act that required the creation of the United States Employment Service. On August 17th, 1933, Colorado accepted the federal government's act and designated the Industrial Commission of Colorado to be the department to implement the provisions of the act by creating employment agencies. Colorado's legislature funded this project for the amount of $35,000 for the fiscal year ending in July of 1935. This was one example of the way in which the Colorado state government cooperated with the federal government to provide relief for its citizens during the Great Depression. [14]

House Joint Resolution No. 20

The House Joint Resolution No. 20 in 1933 urged the establishment of an official State bank of Colorado that would be able to accept deposits at low rates of interest to refinance mortgages. In addition, Colorado amended the workweek to be a maximum of five days for a six-hour limit per day. This limit encouraged businesses to hire more people and increase the amount of employment opportunities for the state of Colorado. The third prong of the resolution was to set a price floor for farm products. The price floor was to be set by the Colorado state legislature. It required agricultural products to be sold for at least ten cents more than the cost of producing each product. The intent of this law was to fix competition by requiring the farmers of Colorado to sell their products at a high enough rate to encourage the continued production of agricultural products. [14]

The Federal Emergency Relief Administration in Colorado

On May 12, 1933 as part of President Roosevelt's New Deal, the Federal Emergency Relief Administration (FERA) came into existence, providing funds to several states to relieve the economic stresses caused by the Great Depression and subsequent unemployment. Colorado was one of seven states that Harry L. Hopkins, the new federal administrator of FERA, approved to be funded in his first day in office, provided that the state matched the amount of funding coming from FERA. By the end of that year, the state had not been able to secure funds to match FERA's contributions because of an ineffective General Assembly known as the "Twiddling Twenty-ninth". They earned this name because they were viewed as ineffective leaders, widely denounced by the citizens of Colorado as “not doing enough” during this time of severe economic downturn. Since they were not able to match the funds coming from FERA, Hopkins ceased all funding being sent to Colorado on December 31, 1933 after multiple, repeated threats. FERA funding accounted for over 85% of all relief in the state at the end of 1933. With this sudden and sharp decrease in relief funds, the General Assembly finally passed a bill that diverted highway funds and increased the state gasoline tax, which finally raised enough money to match FERA’s contribution. Upon raising the necessary funds, money from FERA began to flow back into Colorado. [7]

Employment Preference

The state legislature of Colorado required any businesses with available positions to hire men with dependents before anyone else. The legislation was encouraged by House Joint Resolution No. 18 in 1933. This meant that businesses gave employment preference to fathers or husbands rather than single men with no dependents, regardless of qualifications or skill set of the potential workers. [14]

Loans and Grants

By 1933, the state legislature authorized the governor of Colorado to accept loans and grants from the federal government to provide assistance to the unemployed through the Public Works Administration. This served as the beginning of the Public Works Program, in which the unemployed were put to work on government projects that further developed the state. The first project of this kind was the building, construction, and maintenance of highways in the state of Colorado. The legislature specified that the loans and grants from the federal government should be known as the "Emergency Highway Construction Fund" and that the state of Colorado was authorized to pay interest on any loans that it accepted from the federal government to finance this program. This act also authorized twenty-five percent of all gas taxes to be used for the Emergency Highway Construction Fund to fund projects and pay back federal loans. Seventy percent of the funding for this project was required to be paid in the form of wages to those who would become employed by this project. [15]

Gas Excise Tax

For the relief of the unemployed, an additional one-cent per gallon of motor fuel from February to August 1934 was imposed on January 22, 1934 in the Second Extraordinary Session. The additional cent per gallon of gas helped to raise over two million dollars per year after it took effect in 1934. [15]

State Industrial Recovery Act

The State Industrial Recovery Act was another example of a cooperative strategy between the federal and state government of Colorado, which provided state support through matching grants for the National Industrial Recovery Act and all of its provisions. The National Industrial Recovery Act was part of Roosevelt's New Deal that allowed for the regulation of industry and price fixing to counteract deflation. The state government cooperated to enact this program in Colorado as well.

Creation of the Public Welfare Department

On March 28th, 1936, under the "Welfare Organization Act of 1936," Colorado created the Public Welfare Department in response to the Social Security Act. The duties of this department included administering aid to the needy, caring for children, the elderly, blind, and any other necessary welfare functions. The portion of public welfare allocated for the unemployed was 37.34% of total budget. Beginning on January 1st, 1937, all revenue from storage, use, or consumption and liquor excise tax were to be redirected into the public welfare fund. In addition, an additional inheritance tax (10%) and incorporation fee (also 10%) were to be redirected into the fund. Under these added provisions, a total of $350,000 was to be additionally put into the public welfare fund to aid the needy. On March 9th, 1937, an additional $550,000 was put into the public welfare fund for the relief of the unemployed. [18]

Unemployment Compensation Act

The Unemployment Compensation Act was adopted on November 20th, 1936 by the Colorado state legislature. This act declared that the unemployment due to the economic depression was not a fault of any worker, but a fault of the economy as a whole. Needing two years to build up a resource fund, the legislature decided to make payments to unemployed individuals on a weekly basis beginning on January 1st, 1939 in response to the requirements of the Social Security Act. Under this act, each unemployed individual would receive weekly payments of fifty percent of their regular wages, which included both fully and partially unemployed people. In order to receive these benefits, the unemployed person must be registered with an employment agency, must be willing and able to work, had claimed benefits, and had been unemployed for at least two weeks. They also must have been unemployed for at least thirteen weeks in the previous year.

The Unemployment Compensation Act also established the Unemployment Compensation Fund, which was overseen by the Unemployment Compensation Commission. The sources of revenue for the fund were money appropriated by the state government and funding from the federal government, in addition to interest on the fund. The state covered their portion of the fund through the creation of a new "Unemployment Compensation Tax" in 1939. The tax raised just around five million dollars in both 1939 and 1940 respectively. The commission was responsible for paying benefits to the unemployed in the form of vouchers. The Commission also helped decrease unemployment by assisting in vocational training and teaching programs through counties and schools.

Unemployment Programs and Policies Overview

This exhaustive and comprehensive list of unemployment policies and programs in Colorado during the Great Depression between 1930-1940 illustrates the effort on both the state and federal levels to revitalize the state economy through job creation. Since President Roosevelt, the Colorado U.S. Representatives, and the Colorado state government were mostly Democrats, they were able to cooperate to effectively implement several relief efforts in the state through the expansion of local and state government. This included the creation of many state agencies and committees to comply with President Roosevelt's federal New Deal legislation. Some of these programs saw more success than others, but the implementation of new employment committees, coupled with funding from the federal and state levels, helped thousands of people in the state of Colorado to get back to work.

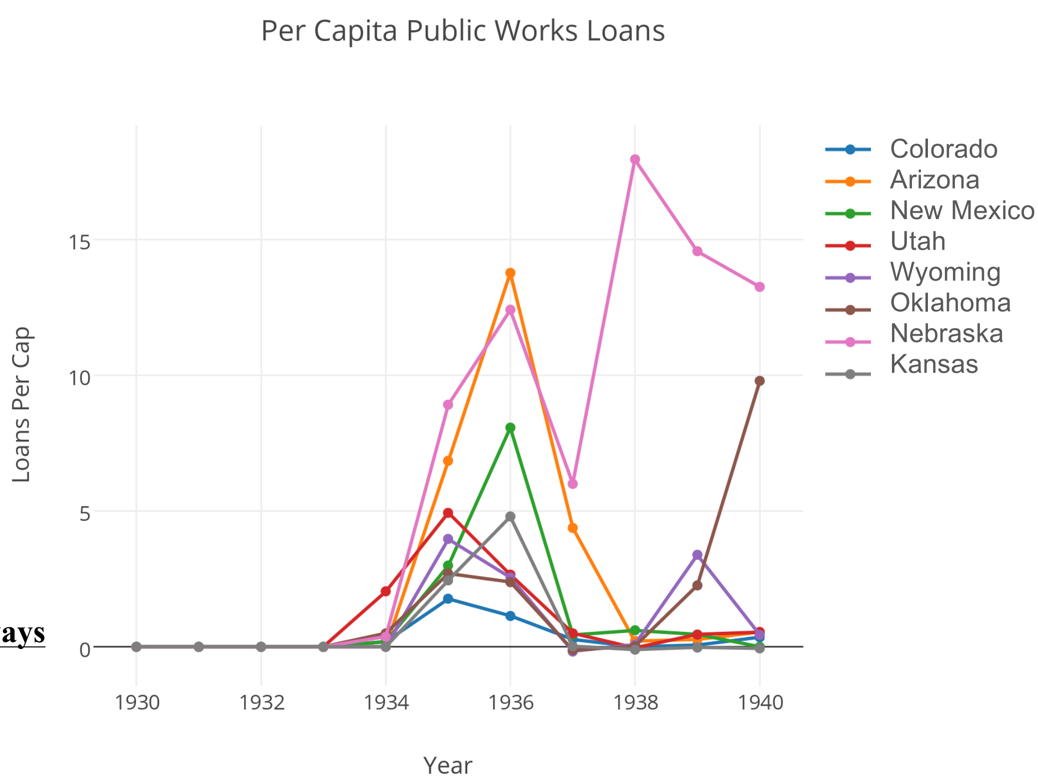
II. The Public Works Program in Colorado

Public Works Overview

In an attempt to combat the fallout from the Great Depression, Colorado state legislature approved a number of laws outlining a framework for a variety of public works projects to inject funds, jobs, and vigor into the stagnant economic situation of the state. This was accomplished through Colorado's House Bill 866 and House Bill 32 in 1933. When the bills became laws, they gave express permission to all subdivisions of the Colorado government to access loans, federal grants, and private funds to execute various public works projects including, but not limited to: the construction and repair of highways; the extension and upgrading of purification and access for municipal waterworks; construction of irrigation, drainage, or sewage systems; the construction, repair, or repurposing of low-cost public housing; and any other projects deemed qualified under the Emergency Relief and Construction Act of 1932 and the National Industrial Recovery Act [11]. These laws provided the framework for public works projects to be completed, but lasted for only two years from the date on which they were signed into law. Therefore, as the economic situation in Colorado did not immediately recover from the Great Depression, the Colorado state legislature continued to support these programs and revamp the public works projects even after their initial expiration date. This allowed the state enough time to recover and to restore the economy and the financial wellbeing of the citizens of Colorado [11].

Figure 2 depicts the federal loans per capita in Colorado from 1930-1940, with neighboring states added for comparison. It is important to note that the number of public works federal grants for all states was zero prior to 1933, since the federal program didn't come into existence until the New Deal's implementation after President Roosevelt took office in 1933. Although the number of grants accepted by Colorado was lower than some other states, such as Nebraska, Oklahoma, and Arizona, Colorado still accepted a great deal of federal loans, totaling over 4 million dollars (in 1967 dollars) between 1935 and 1940.

Figure 2



Highways

In August 1933, in the midst of the Great Depression, Colorado's state legislature passed a number of laws regarding the construction of highways throughout the state in an effort to create jobs and stimulate the economy. In an emergency special session of the Colorado state legislature, legislators approved the creation of a so-called "Emergency Highway Construction Fund" which gave the state the power to take out loans and accept grants from the federal government in order to fund the construction of these highways.

Figure 3 depicts the amount of federal highway aid given to Colorado and its neighboring states per capita from the year 1930-1940. Colorado received much more federal grant funding for these highway construction programs in 1934, after the state legislature passed the "Emergency Highway Construction Fund." At its peak in 1934, Colorado was receiving close to six million dollars total in highway aid from federal grants. Many of these grants required matching by the states, which would put the expenditure on highway construction close to twelve million dollars. This expenditure choice on the part of the state government progressed the public works program in Colorado significantly and employed thousands of people in efforts to stabilize the economy through increased worker income and consumer spending.

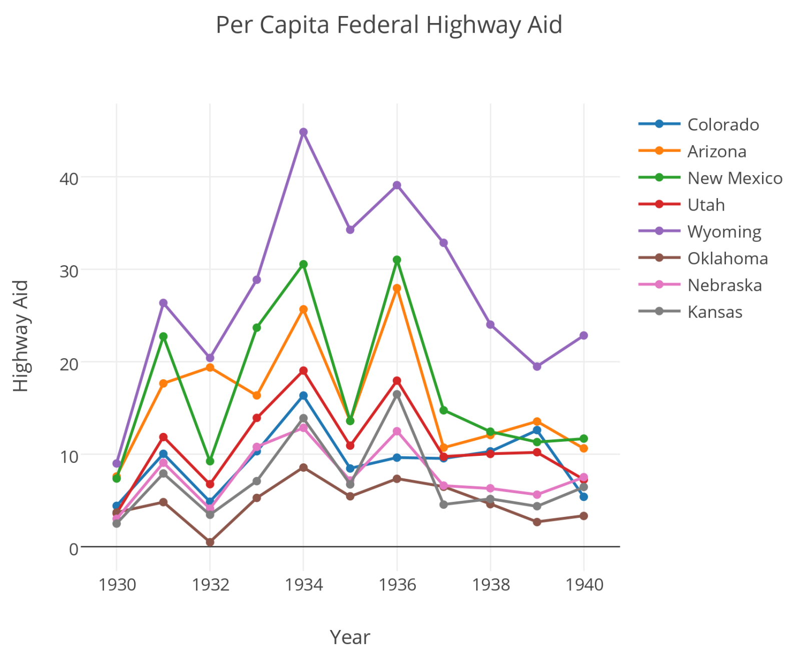


Figure 3

The highway laws also included provisions for dividing the state into districts as the governor saw fit in order to more evenly distribute any jobs that were created as a result of the law. It also specified that the maximum amount of human labor that was required to be used in place of mechanical labor. One provision attempted to maximize the amount of jobs created and to establish the minimum wage for highway construction workers to the level that the Industrial Commission should see fit [11]. On August 17, 1933, the Colorado state legislature approved a law granting permission to the state to construct or repair freeways while spending up to $100,000.

Additionally, the law required that all employees be residents of Colorado, and of the county where the construction is taking place if at all possible. Governor Edwin C. Johnson, who was a firm believer in creating jobs only for natives of Colorado, negotiated this as a requirement of the highway laws. The intention was to employ native residents of Colorado, while excluding any migrant workers [4]. Some Republican opponents of Governor Johnson saw this as racism, but Johnson coined it as a job creation effort that received widespread support.

The purpose of the highway construction laws were twofold. First, they were intended to extend the existing highway system in Colorado. Second (and more importantly), the construction was intended to provide jobs and economic stimulation to communities around the state that were experiencing high levels of economic stagnation or unemployment [14]. These were common trends throughout the country that were addressed in various ways by both the states and the federal government.

In 1936, state legislators created a new State Highway Department that held the powers necessary to construct or repair highways and bridges throughout the state. This department had the ability to provide the funding for these public works projects. The projects were to be funded in part by private investors, in part by the state, and in part by the federal government. The private investors were able to earn back their investment through the accumulation of funds that the State Highway Department received as a result of the construction and repair of the roads [12]. This opened up new doors in Colorado for private investors to take place in the revitalization of the economy indirectly through the government's public work projects. By opening up this section of the public sector to private investors, the state was no longer limiting the potential for public works projects to be completed solely with the use of government funding. These public-private partnerships allowed for greater possibilities for economic growth and the creation of even more new jobs.

Although highways were one of the main components and successes of the Public Works Program, there were several other initiatives as well, such as water projects.

Water Projects

In the 30th General Assembly of the Colorado state legislature in 1935, legislators signed into law the provisions for the construction of a dam and consequential reservoir along the Arkansas River in the southeastern region of the state. The construction of this dam fell under the jurisdiction laid out by state legislature in 1933 for the emergency utilization of public works projects that was extended in 1935. Like many other Public Works Programs, the expiration date prompted the legislature to extend the date to continue the attempt towards economic growth and revitalization [12]. By 1936, the entire Caddoa Reservoir Project had been entirely funded by the federal government. Construction began in 1939, bringing numerous jobs to a much less densely populated region of Colorado than the Denver or Colorado Springs areas [16]. The project allowed for a migration in population, the growth of a new area of Colorado, the continuation of relief projects, and an expansive reservoir.

Housing

In addition to the implementation of new water projects and highway systems, housing was another large component of the Public Works Program. In 1934, as part of Roosevelt's New Deal, the Federal Government approved the National Housing Act of 1934. The purpose of this act was to assist individuals with acquiring affordable housing and eliminating slums through the creation of the Federal Housing Association. The Federal Housing Association was responsible for regulating and enforcing policies relating to housing mortgages, insurance, and loans under a set of standards that made it easier for people to afford a home in an effort to eliminate the need for citizens to live in slums [6]. Following suit from previous decisions, Colorado state legislators enacted new policies in support of Roosevelt's New Deal legislation. In 1937, the Colorado State Legislature approved a law allowing all subdivisions of the state government to take advantage of the benefits set forth by the National Housing Act [19], as well as the ability of cities or governments to cooperate with agents from the Federal Housing Agency [19]. By this time period, thousands of Colorado's citizens were living in slums with unsafe, unsanitary, and inhumane living conditions [19]. The state did not believe that the private sector had the ability to provide affordable living conditions to all of the Colorado residents living in the slums, and decided to step in. Therefore, Colorado state legislators approved a law granting permission and ability to any and all cities in Colorado to construct affordable housing projects, funded by public works funds. These housing projects were to entirely replace the slums that had sprung up in various cities and create new living quarters with a low monthly rent for everyone to afford. The law also stated that the construction of these housing projects was required to be completed using as little mechanical help as possible, leading to maximum job creation for those still without employment [19].

While the admirable intention in this program was to get the citizens of Colorado out of the slums, the state government widely expanded their power in order to execute the program. Backed by Governor Edwin C. Johnson and the Democratic representatives in the Colorado legislature, the state government expanded to an unprecedented level. Both state tax dollars and federal public works grants were used to support this expansion of state government for public works housing.

III. Silver & Gold Mining and the Economy of Colorado

Background

Many of Colorado’s earliest settlements were built to extract natural resources, especially gold and silver. Colorado mines became one of the most important sources of silver and gold in the late 1800s and early 1900s during the Gold Rush era. In 1931, Colorado state representatives recognized in House Joint Memorial No. 1 that silver had been the most important link to its state’s prosperity. [14] Due to the economic downturns through the Great Depression, however, silver was being used less, as unemployment increased and consumption decreased. The United States mint stopped production of many silver coins in the 1931, 1932, and 1933, such as the nickel and dime. Since silver mining was one of Colorado’s most important industries and sources of income, the state legislature of Colorado insisted that silver become the standard and be reestablished with high monetary value in the United States. The state did not succeed in reestablishing the silver standard, despite several attempts in the early 1930s.

Colorado’s Efforts & Resolutions

The Reconstruction Finance Corporation was enacted by President Herbert Hoover’s Republican Congress in 1930, which encouraged the federal committee to make loans to industries that would repay the loans on their own by “self-liquidating” [13]. This meant that the loan-receiving industries would use these loans to rebuild the employment in the states by using the loans as investments in certain industries. In 1933, Colorado’s legislature passed House Memorial No. 1, which encouraged the United

States' government to issue loans from the Reconstruction Finance Corporation to the mining industry in Colorado. The legislature believed that this was a worthwhile investment because it would create jobs in Colorado while utilizing a natural resource. It would create wealth through the mining of silver, which was already part of the nation's wealth standard. The legislature also mentioned that no private funding was available in this market and that Colorado could become the nation's biggest supplier of silver. Colorado was not successful in its negotiations with the federal government, however.

The state legislature of Colorado also wrote a letter to President Roosevelt regarding the Agricultural Adjustment Act and its relation to mining. According to the Agricultural Adjustment Act of 1933, the President had the authority to change the weight of silver and gold dollars to compete with foreign markets. They recommended that President Roosevelt reinstated the monetary value of silver so that sixteen ounces of silver would be equivalent to one ounce of gold. In doing so, they insisted that Roosevelt could revitalize thousands of mining jobs that had been lost.

Gold was also abundant in Colorado. Since President Roosevelt valued gold to twenty dollars and sixty-seven cents per ounce, Colorado and other mining states could not keep up with the international markets. The average rate of gold in foreign markets was thirty dollars per ounce, but the trade restrictions on gold necessitated that it could not be exported to foreign countries. Unfortunately, this meant that the miners of Colorado could not gain from their mining. Therefore, the Colorado state legislature approved Resolution No. 4, which encouraged President Roosevelt to change the value of gold to a price of thirty dollars per ounce to keep up with foreign markets. Their reasoning was that the increased price would open trade, allow the United States to remain competitive in a global market, and relieve the vast level of unemployment in Colorado. The resolution also insisted that the president allow exportation of gold so that those in Colorado could receive the global price for production of gold.

The Dies Bill

The Dies Bill was a compromise of a silver bill with the support of almost all the Senators from the West and virtually none of the Senators from the East. This bill encouraged two billion ounces of silver to be purchased and made into silver over the course of eleven years, from 1935 to 1946 [21].

Executive Order 6814

Under Executive Order 6814, President Roosevelt made owning any personal silver illegal and demanded that it all be shipped to the United States mint for making silver coins [2].

The Silver Purchase Act of 1934

In 1934, the federal Silver Purchase Act was signed into law, which bought silver from all Americans with very few exceptions. The only silver that Americans were allowed to keep for personal use after the passage of this act was silver coins and jewelry. In exchange for silver, the United States government paid around fifty cents per ounce. The intent behind the initiative was to restore the value of monetary silver by holding silver in the United States Treasury. This act raised the price of silver globally and had a positive effect on the mining industry of Colorado [2].

Taxes for the Mining Industry

In January of 1934, mining was declared a public interest. As a public interest, federal funding under National Industrial Recovery was devoted specifically to mining interests in the United States. In collaboration with the federal government, the state government of Colorado levied a tax specifically to support the mining industry and promote statewide employment in one of Colorado's most important industries [15].

School of Mines Tax

On June 4th, 1937, the Colorado state government levied a tax on the people of Colorado to create the school of mines. After mining had been declared a public interest and the Dies Bill was passed, Colorado created the School of Mines. The tax implemented was in the amount of .096 per dollar of taxable property within Colorado and was used towards the construction of buildings for the school. The goal was that over time, the educational efforts would increase mining in Colorado.

IV. Prohibition and Repeal in Colorado

Background

The Eighteenth Amendment to the United States Constitution was ratified in 1919, which prohibited the production, sale, and transport of alcohol in America. This amendment was approved and ratified by forty-six of the forty-eight states. Colorado became the thirtieth state to ratify this amendment on January 15th, 1919.

Although this was the first time the federal government had imposed alcohol restrictions on Colorado, the state's initial attempts at reducing alcohol consumption began very soon after it became an official state on August 1st, 1876. Early farming and ranching towns enacted policies that required exchanged land to revert to its original owner if alcohol was sold there [10]. Banning alcohol consumption became especially politically popular in 1893, after women were granted the right to vote in Colorado. The Women's Christian Temperance Union, for example, became a strong force in the battle against alcohol. The women's group pushed for policies that would ban liquor throughout the state [11]. Colorado had also passed an alcohol prohibition as a constitutional amendment to its state constitution five years prior to federal prohibition, in 1914. The people of Colorado approved statewide prohibition by a vote of 129,589 to 118,176 at general election [9] and the ban on alcohol throughout the state began at midnight on January 1st, 1915.

The intention of these constitutional amendments was to "reduce drinking by eliminating the businesses that manufactured, distributed, and sold alcoholic beverages" [25]. Drinking had become a widespread cultural phenomenon with several unintended consequences, some of which included prostitution and gambling [11]. The prohibition of alcohol was intended to increase consumption of other forms of entertainment, such as shopping and movie going. It was also intended to improve neighborhoods through the shutdown of saloons. The hope was that the efforts to decrease alcohol consumption would eventually decrease the crime rate, especially for alcohol related crimes.

Consequences of Prohibition

On January 1st, 1915, Colorado shut down1,500 saloons, 500 hotels, restaurants, and drug stores, and twelve beer breweries. Consequently, all of these entities laid off all workers and closed operations [26]. The first unfortunate consequence of prohibition was an increase in unemployment and a decrease in consumption. Due to the loss of many jobs of those employed in the alcohol industry, from saloon owners and workers, to wholesalers of alcohol, and those employed at breweries, unemployment increase and aggregate consumption of both alcohol and other goods actually decreased as a result of reduced income [25].

Colorado also had a significant amount of loopholes in prohibition laws, which also lead to many unintended consequences. One big loophole was an allowance for pharmacists to prescribe four ounces of alcohol for patients. That year alone, 16,000 prescriptions were issued for alcohol. Another loophole was permitting alcohol use for religious purposes. One religious community took advantage of this loophole, consuming four hundred gallons of wine in just one month for "religious purposes" [14]. Other "wet states" that had not yet prohibited the manufacture and sale of alcohol began exporting liquor to Colorado, especially across the Wyoming-Colorado border.[3] The underground alcohol market started to boom, as bootleggers began smuggling liquor into Colorado, increasing the crime rate. Bootleggers and organized crime rose substantially, as people turned to the black market for alcohol. This black market posed many health risks as well, when unregulated production began to include ingredients such as embalming fluid, rubbing alcohol, and paint thinner. These ingredients caused health problems from slight pain to blindness [14]. Due to lack of regulation, it is estimated that around one thousand people died per year during the Prohibition Era due to unsafe alcohol consumption [14].

Government revenue also decreased, losing out on all excise tax from alcohol sales that once was a large portion of the state budget. Prohibition was not effective in Colorado, where more public drunkenness arrests (2,600 in 1937) occurred after the ratification of prohibition.

Colorado and the Repeal of Federal Prohibition

On September 26th, 1933, Colorado officially ratified the twenty-first amendment to the United States constitution, which repealed the eighteenth amendment's federal alcohol prohibition. Ratification of the twenty-first amendment was handled by a state convention of fifteen Colorado citizens. The vote to approve the amendment was unanimous, with all fifteen members voting in favor of the repeal. This was not a surprise because the Colorado Governor and President of the ratification convention, Edwin C. Johnson, had appointed all members of the convention specifically because of their previous public support of this initiative [22]. Colorado became the twenty-fourth state to ratify this amendment to the federal constitution. At the time of federal ratification, Colorado had already ratified a prohibition repeal to the state's constitution and had been officially dry for over a year.

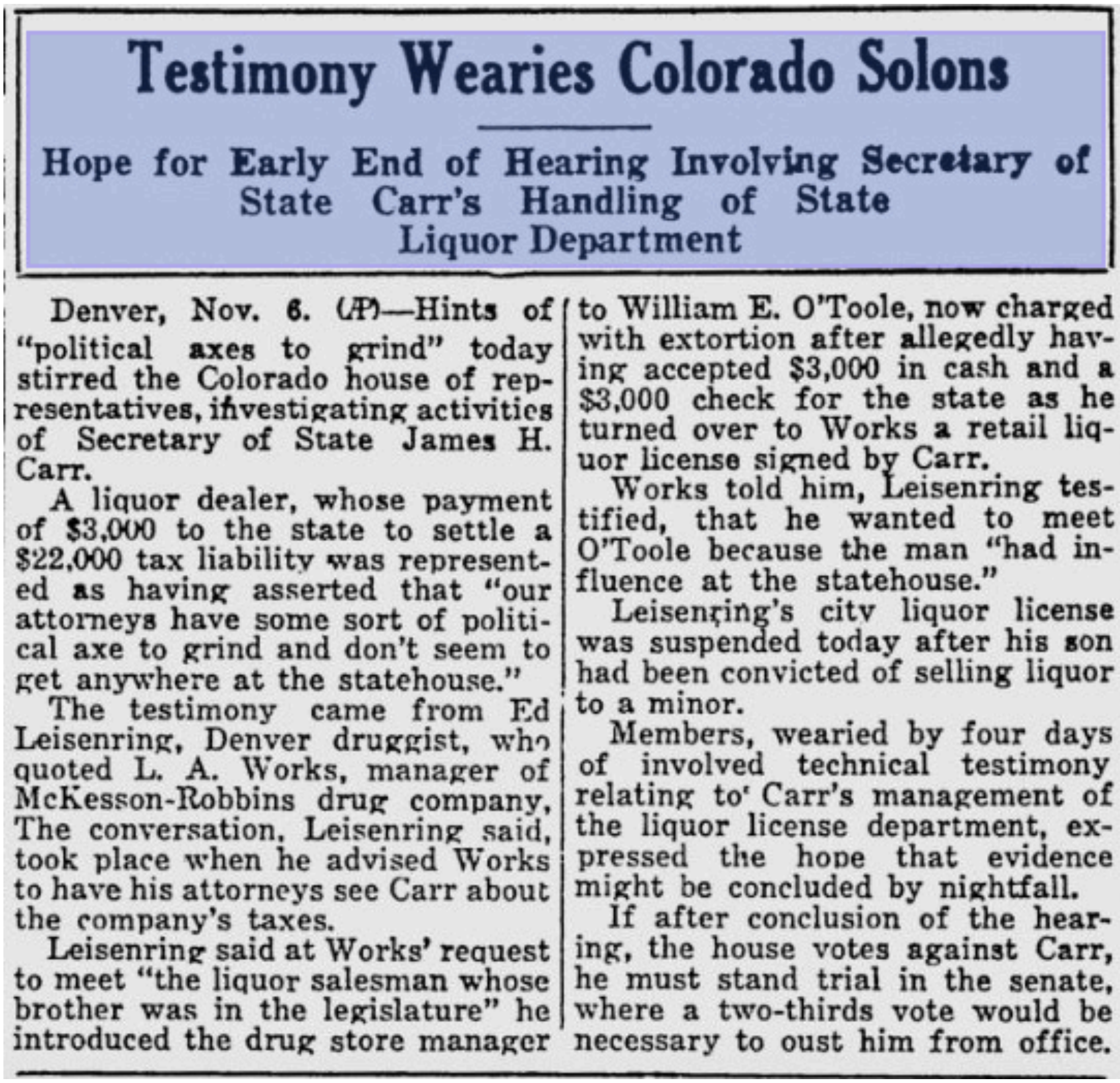
State Prohibition Repeal

Due to many unforeseen negative consequences of Prohibition, Colorado became one of the first states to repeal state Prohibition. On November 8th, 1932, Colorado voters approved an amendment to the state constitution to repeal the existing liquor laws prohibiting "intoxicating liquors," subject to federal appeal. The amendment was approved by a vote of 233,311 to 182,771 at the General Election. On July 1st, 1933, the manufacture, sale, and distribution of alcohol officially became legal once again in the state of Colorado [13]. The timing of national prohibition was between 1920-1933, with official, federal repeal five months after Colorado's statewide repeal on December 5th, 1933.

Subsequent Regulations and Enforcement in Colorado

There were several laws passed in accordance with the new federal and state constitutional amendments. First, an appropriation was made by in the 1933 session for the creation of the Department of Liquor Permits and License Department [12]. This department was housed in Colorado's State Department and was responsible for licensing and regulation of all liquor dispensaries, including saloon and wholesalers. Many regulations went into place for the distribution and sale of alcohol through this department. Those who wished to distribute or sell alcohol had to pay a $100 state licensing fee, which was necessary for a permit to sell alcohol. On top of the $100 fee, an additional annual fee of $2.50 was required by any business wishing to sell alcohol, including breweries, distilleries and bars. These distributors also needed a federal permit to conduct business. Any violation of these provisions would result in a $300 fine or a maximum of six months in jail. Aside from licensing issues, other regulations imposed were that selling to a minor was illegal, selling to an alcoholic or "drunkard" was illegal, and that alcohol could not be sold on Sundays or election days between 1-7am. All aforementioned laws were to be enforced by the State Department of Colorado and specifically the state's Secretary of State.

<u>Impeachment of James H. Carr, Secretary of State</u>



Testimony Wearies Colorado Solons

Hope for Early End of Hearing Involving Secretary of State Carr's Handling of State Liquor Department

Denver, Nov. 6. (AP)—Hints of "political axes to grind" today stirred the Colorado house of representatives, investigating activities of Secretary of State James H. Carr.

A liquor dealer, whose payment of $3,000 to the state to settle a $22,000 tax liability was represented as having asserted that "our attorneys have some sort of political axe to grind and don't seem to get anywhere at the statehouse."

The testimony came from Ed Leisenring, Denver druggist, who quoted L. A. Works, manager of McKesson-Robbins drug company. The conversation, Leisenring said, took place when he advised Works to have his attorneys see Carr about the company's taxes.

Leisenring said at Works' request to meet "the liquor salesman whose brother was in the legislature" he introduced the drug store manager to William E. O'Toole, now charged with extortion after allegedly having accepted $3,000 in cash and a $3,000 check for the state as he turned over to Works a retail liquor license signed by Carr.

Works told him, Leisenring testified, that he wanted to meet O'Toole because the man "had influence at the statehouse."

Leisenring's city liquor license was suspended today after his son had been convicted of selling liquor to a minor.

Members, wearied by four days of involved technical testimony relating to Carr's management of the liquor license department, expressed the hope that evidence might be concluded by nightfall.

If after conclusion of the hearing, the house votes against Carr, he must stand trial in the senate, where a two-thirds vote would be necessary to oust him from office.

One of the first Secretaries of State to enforce the new policies and regulations was Secretary James Carr. James Carr was elected Colorado's Secretary of State in 1934. As Secretary, his duties included the administration, licensing, and regulation enforcement for all of Colorado's businesses, including the newly legal liquor businesses [8].

In 1935, Carr was believed to have been involved in a scandal regarding liquor sales. Governor Edward Johnson launched an investigation into Carr's official position as Secretary of State [3]. The investigation found that Carr had in fact been involved in the alleged scandals, using his official capacity as Secretary of State to take bribes and manipulate liquor laws. There were several charges brought against him that were addressed in Colorado's Extraordinary Session of 1935. The first was sharing confidential government files, especially those regarding liquor licensing, with nongovernment employees. The next charge was for allowing several liquor wholesalers to conduct business without paying the necessary fees and licenses required by state law [23]. He also hired his friends as auditors in exchange for bribes. He was further charged with allowing some liquor companies to engage in tax evasion, denying the state of Colorado a considerable amount of revenue [17]. Carr was finally charged with authorizing his department to destroy records of liquor distributors and sales [17].

He was officially impeached by the state legislature in the Extraordinary Session of 1935 with a vote of 46 to 15. His impeachment charges included malfeasance, extortion, and conspiracy in office. Carr sent his official letter of resignation on November 12, 1935 and was sentenced to a year in prison and a $400 fine. Carr would have had two years left in his term as Secretary of State at the time of his impeachment, and was only the second man ever to be impeached in the state of Colorado [9].

V. The Implementation of New Taxes

New Taxes

In the 1930s, Colorado adopted several new taxes for the first time and expanded many others. Among these taxes were sales, property, inheritance, income, gift, gas, and liquor, among many others. There were a few reasons for the adoption of these new taxes. First, many new industries were arising in the 1930s. For example, the repeal of alcohol prohibition led to the popularity of bars and liquor sales. Automobiles also became popular in the 1930s when they were mass-produced for the first time. This new industry led to many increases in revenue for the government, from taxes on roads and cars, to fees for licenses and automobiles. Figure 4 compares the auto registrations per capita in Colorado to its neighboring states from 1930-1940. The number of per capita registrations significantly decreases across the states in the years 1932 and 1933, when the economic downturns caused by the Great Depression were the steepest. However, as

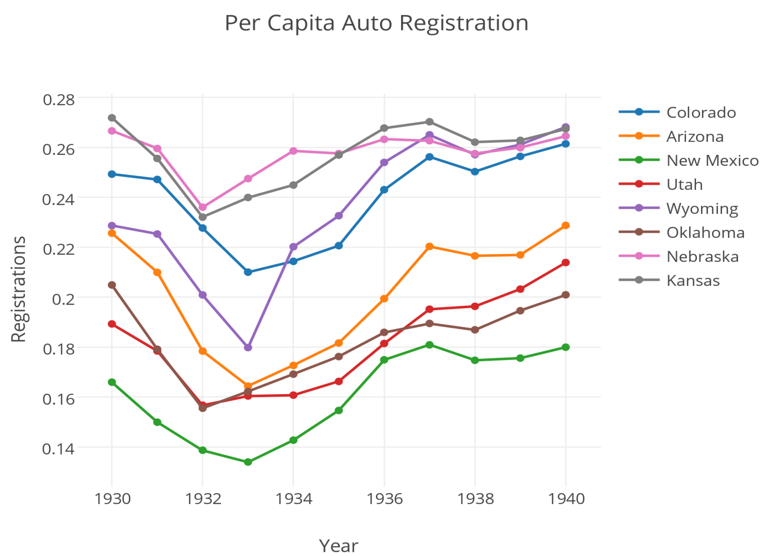


Figure 4

states began to recover after the implementation of federal and state relief and recovery policies, the number of registrations increased again. By 1934, Colorado was up to .24 auto registrations per person, indicating that more people were buying and registering cars than in the earlier 1930's. Colorado was at a level about average for national auto registrations.

The second reason for implementing new taxes and increasing older ones was that Colorado was facing a tough time in its economic history when many of its residents were losing jobs and struggling to survive. Many of these new taxes, such as the increased gas tax, sales tax, and income tax were all geared towards providing relief for those who had become unemployed during the Great Depression. Some of these taxes were even explicitly sent to the unemployment or destitute relief and recovery funds.

Sales Tax

In the Second Extraordinary Session of 1935, the Emergency Retail Sales Tax Act was passed. This act was an effort to provide relief to those who had lost their jobs as a result of the economic downturn. This sales tax included a 2% tax on all personal property, telephone and telegraph services, and gas and electric service. It also included a 2% tax on meals, cover charges, hotel stays, and services as well. This was the first time in Colorado's history that a sales tax like this was implemented. It was added to the prices of items and listed as a separate charge on the itemized receipt.

All sales tax under this act went directly into the Emergency Relief Fund to be used by the Colorado Official State Relief Committee. Alcohol taxes were also included in this sales tax, with revenue of over $20,000 (1967 dollars) from the first year after prohibition was repealed (1934). At its peak during the Great Depression era, in 1939, alcohol sales tax was eventually bringing in over two million dollars in state taxes. In the Second Special Session of 1936, sales tax was expanded to include the storage of any personal property at a 2% tax rate as well. After the sales tax passage in 1935, sales tax began to bring in over nine million dollars (1967 dollars) per year. Between 1935-1940, total sales tax accounted for over $114 million dollars of state tax revenue [16].

Property Tax

On April 9th, 1929, an additional .0005 cents per dollar of taxable property was levied for the years 1929 and 1930 to be added to the Colorado state general fund. The revenue from this tax was to be used for general state purposes [11]. Although this tax was short-lived, it generated over five million dollars (1967 dollars) in 1930.

Inheritance Tax

Inheritance taxes had been collected in Colorado prior to the Great Depression, but when the economy began to take a negative turn, they were amended to provide more revenue to the state government. On May 6th, 1929, the inheritance tax of Colorado was changed so that money given to the recipients of the life insurance policy could be taxed as well [11]. This modification in state tax law gained an additional one million dollars in 1930 (1967 dollars) for the state in tax revenue and consistently collected revenue for the next decade to fund relief programs.

Income Tax

A constitutional amendment to Colorado's state constitution was ratified on November 3rd, 1936, which officially implemented Colorado's first statewide individual income tax. The income tax was narrowly adopted, with 167,268 people voting in favor of it and 159,143 people voting against it. The constitutional amendment read that the income tax could be "graduated or proportional" and the rate of income tax differed based upon level of income. The statute applied to both individuals and corporations. Those earning less than $2,000 in net income annually only paid 1% of their income in tax, whereas those who made $10,000 or more paid 6% of their income in income tax. There was also a universal 2% tax, regardless of income, taxed onto all dividends, stock, interest, bonds, and credit. The act also specified that any income from property would be taxed as well. The individual income tax did not have significant effects on state tax revenue, however, because most of the population at the time period was making so little that the individual taxpayer was paying on average less than $8 per year. However, by 1939, the state was collecting around two million dollars in tax revenue from individual income taxpayers (1967 dollars). Corporations were mandated to pay the income taxes as well, beginning in 1934. At initial implementation, corporations collectively only paid $2,335. However, by 1940, the state was able to bring in over one million dollars (1967 dollars) from corporate income taxes [19].

Gift Tax

On May 6th, 1937, a gift tax was imposed that mandated any transfer of property in the form of a gift had to be taxed. The gift tax did not replace the sales tax, but instead acted as an addition to sales tax, making a gift double taxed. The tax percentage differed depending on the price of the gift and the relationship between the recipient and giver. For gifts with a value over half a million dollars for an immediate family member, for example, an 8% tax was imposed. For gifts under $2,500 to a friend, coworker, or other nonrelative, a 7% tax was imposed [19].

Gas Tax

In the 1920s, cars were mass-produced in the United States to meet the newly popular demand. On May 1st, 1929, Colorado's state legislature implemented the first gas tax in Colorado. The gas tax was set at a rate of four cents per gallon of fuel to be collected by the gas distributor at the time of purchase. The gas tax ended up becoming one of the biggest sources of revenue for the state government. For example, in 1930, the first year after implementation, the tax brought in over 6 million dollars (1967 dollars) despite the fact that the tax was only four cents per gallon. This would mean that over 150 million gallons of gas were purchased in Colorado alone during the first year, which suggests just how important the development and mass production of automobiles were for the time period. From 1930 to 1940, Colorado's motor fuel tax granted over 90 million dollars to the state government. The gas tax initially went into the State Highway Fund, where 70% of it was spent on building highways, 27% of it was given to the counties to build roads, and 3% of the tax was spent on streets and roads within cities. None of this gas tax was permitted for use on the construction of roads between states, however.[1] During the Second Extraordinary Session of 1933-1934 the gas tax was raised an extra cent for emergency relief of the unemployed. The extra cent implementation from that session led to an increase in revenue of over two million dollars that were spent on unemployment relief.

Transportation Tax

In addition to taxes for the use of gasoline, there were also several other taxes associated with transportation. In 1931 alone, taxes were implemented for purchasing a vehicle, escorting passengers in a vehicle, and for carrying freight in a vehicle [12]. Expensive permits were also required to operate any of these types of vehicles. For example, a personal car required an annual $50 permit to operate, while others types of drivers had even higher permit fees. Extra fees and taxes were added on for the transfer of a vehicle or the purchase of a new one. There were even more additional fees for various types of tires as well, such as a 25% tax on solid tires [12]. Vehicle owners were also required to purchase insurance, making vehicle ownership a very expensive pursuit in Colorado during the 1930s. The expense, however, did not deplete the amount of revenue from the gas tax, which remained an important source of state tax revenue throughout the '30s. These taxes were used for the building and maintenance of new roads and highways in the state of Colorado throughout era of the Great Depression.

Liquor Tax

On August 22nd, 1933, only about one month after prohibition was repealed in the state of Colorado, but four months before federal prohibition repeal, Colorado placed an excise tax on alcohol for medicinal use. Throughout prohibition, pharmacists were still able to prescribe alcohol as a medical treatment for various uses. On August 22nd, 1993, however, taxes were imposed on the medicinal use. The taxes were three cents per gallon of malt liquor and fifteen cents per gallon of spirituous liquor [14].

Library Tax

On May 8, 1929, the Colorado state legislature voted to establish a free county library. The goal of this library was to educate the public and to provide a common place for all taxpayers of Colorado. 10% of the population of the county approved the construction of the library [11]. The creation of libraries did not, however, affect the literacy rate. This suggests that some of the residents of Colorado did not use the library. If they were using the library, they may not have been accessing its literacy outlets.

School Taxes

An additional tax of .025 cents was levied on all property on May 20th, 1929, that was directed to be collected in 1929 and 1930 to support the construction of additional buildings at the Western Colorado College [11].

By the early 1930s, the high school districts of Colorado had fallen into debt. They had issues bonds that needed to be repaid, but lacked the financial resources to pay them back. The legislature recognized this problem and levied a tax in the session of 1931 for the redemption of the bonds.

Figure 5 illustrates the interpolated percentage of illiterate people in the population. Colorado had much higher literacy rates, at around 97% of its population, than some of its bordering states. For example, Arizona’s literacy rate was just below 90% and New Mexico’s was only about 87% in 1930. Colorado’s addition of taxes to support schools were attempts to further educate their population, which should have led to an decrease in the percentage of their population that was illiterate. This effort should have encouraged economic growth through increased educational efforts to help reshape the state economy. However, the graph shows that the literacy rates remained fairly constant over time although the national illiterate percentage decreased. There are many explanations for this trend. One such example is that Colorado’s illiterate percentage was already low compared with the national average. Another explanation is that the educational spending was not targeting the illiterate percentage. The latter explanation is supported by the state’s session laws, in which many of the dollars spent on education were used to support the construction of new school buildings and the renovation of older buildings. Since the funding was mainly diverted to building, it logically follows that those tax dollars were not spent on decreasing illiteracy rates.

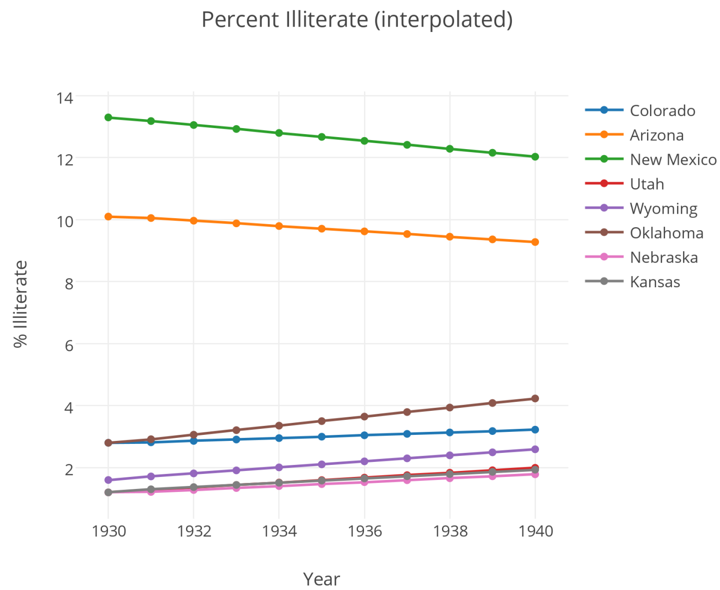


Figure 5

Corporate Tax

As part of the Income Tax passed in 1937, corporations were mandated to pay a tax of 4% annually. Banks specifically were mandated to pay 6% of all income in taxes. Businesses were also mandated to pay several other taxes. Among these taxes were permit and licensing taxes, as well as alcoholic beverage taxes if they served alcohol. Chain stores were taxed at an even higher rate than small businesses beginning in 1939 [19].

Service Tax

In 1937, service taxes were imposed on the general public by the Colorado state government. These services, which included amusement, exhibitions, construction, shops, hotels, apartments, professional and technical services, and essentially everything else not covered under sales tax, was taxed at a 2% rate across the state [19].

VI. Regression Analysis

Colorado State Tax Revenue: A Case Study

The paper thus far has provided a narrative account of how Colorado reacted to the Great Depression, the New Deal, and various other federal responses to the economic downturns of the early 1930s. Colorado is a case study of the actions of one individual state during the time period and it is important to examine how it compares to the rest of the country to paint a big picture of the states' activity during the Greta Depression. The graph below shows the per capita state tax revenue (1967 dollars) for Colorado and several of its surrounding states. Colorado's state revenue gradually increased, like many of its peer states, largely as a result of the need to fund relief programs. Most of the states across the country experienced similar trends, so it is interesting to see how exactly the states increased revenue for these programs. Other factors of interest include the states' federal grants per capita, state income, and spending.

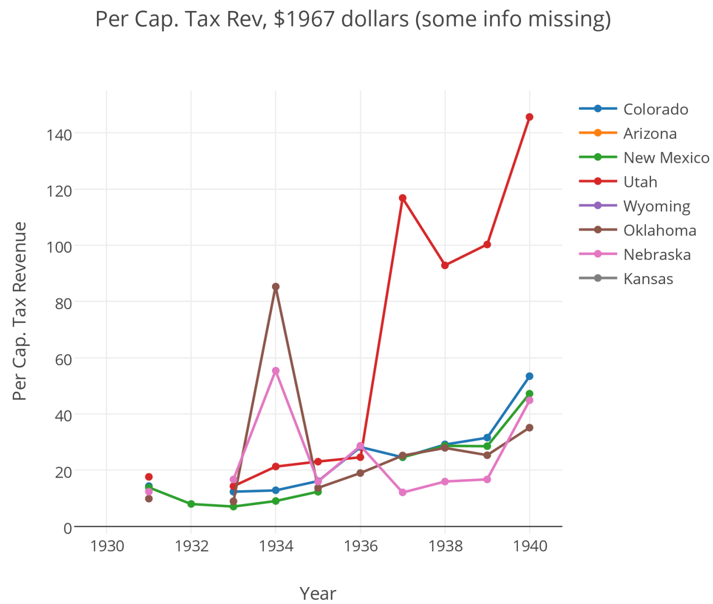


Figure 6

The factors in state revenue increase provide an account of the way in which the states specifically reacted to the Great Depression. The New Deal and Depression influenced state government activity throughout the U.S., so the remainder of my paper will focus on the other states' responses as a whole. I have developed several hypotheses about the influences and factors based on my research of the state of Colorado, so I wanted to see how those things might have affected state revenue in both Colorado and other states throughout the rest of the country. To do this, I have conducted regression analyses where I have controlled for and examined several explanatory variables, with and without fixed effects. The fixed effects allow for the control of national shocks across time and location.

<u>Model:</u>

This regression I used explores correlations between per capita state tax revenue and several external variables, such as income, federal grants, and a vector of other variables. ϵ_{it} Is the error term and β_0 represents the vertical intercept.

$$percapStateTaxRev = \beta_0 + \beta_1 percapY_{it} + \beta_2\, percapfedgrants_{it} + \beta_3 X_{it} + \epsilon_{it}$$

$$X_{it} = \beta_4 percapautoreg + \beta_5 percapagrincome + \beta_6 drought + \beta_7 drought * percapagrincome + \beta_8 percappubworksgrants + \beta_9 \%illiterate + \beta_{10} percapfedaidhighways$$

Table 1

Explanatory Variable	Beta	Predicted Sign
Intercept	β_0	
Per capita income	β_1	Positive
Per capita federal grants	β_2	Positive
Per capita auto registrations	β_3	Positive
Per capita agricultural income	β_4	Positive
Drought	β_5	Negative
Interaction between drought and agricultural income	β_6	Positive
Per capita public works grants	β_7	Positive
Percent illiterate	β_8	Negative
Per capita federal aid to highways	β_9	Positive

Hypotheses:

I expect each of the variables in the analysis to have at least some effect on per capita state tax revenue, although I expect the signs of the coefficients of the variables and the size of their effects to differ.

If per capita income increases, there will be an increase in per capita real state tax revenue. This hypothesis is based on the assumption that tax revenue increases when there is more taxable income. I believe this will occur because many of the state governments began to implement income taxes for the first time. Another possibility is that the increase in income led to an increase in consumption taxation in the form of sales tax, gasoline tax, etc.

If per capita federal grants increase, my hypothesis is that there will also be an increase in per capita real state tax revenue. This is because the federal grants were issued in order to revitalize the economy and create economic growth. For example, one such grant allowed for subsidized housing, which would have led to an increase in disposable income, leading to increased spending, increased sales tax revenue, and increased state tax revenue.

If per capita auto registrations increase, per capita real state tax revenue will increase. This is because the state could charge fees for auto registrations, impose gasoline taxes, and even introduce taxes for the use of public roads. Therefore, the increase in state tax revenue is an effect above and beyond the effect of increased income.

If agricultural income increases, per capita real state tax revenue will increase. I believe that this would be true even while holding income constant because the agricultural income increasing could be indicative of agricultural crop production increasing per worker. The state could tax the sale of these crops through sales tax. Another possibility is that property taxes increased on those who owned the agricultural land, increasing state tax revenue.

If drought increases, per capita real state tax revenue would decrease. This might be because of drought's adverse effects on crop growing. The 1930s were an incredibly dry time period across the entire United States. In addition, the Agricultural Adjustment Act of 1933 mandated that farmers cut down on producing. Therefore, the state government was unable to tax a possible source of revenue through sales tax. This is an effect beyond income per capita and agricultural income.

If public works grants increase, per capita real state tax revenue would increase. This might be because the states had to come up with their own funds to get some of the public works grants. Some federal grants required supplemental or matching funding from the state, which would have forced the state to tax its residents more to implement various public works programs.

If the percentage of the illiterate population increased, then per capita real state tax revenue would decrease. This is likely because the states were not spending on education, so they decreased taxes to support education and literacy programs. The decrease in education-related taxation would cause real state tax revenue to decrease.

If per capita federal aid to highways increased, per capita real state tax revenue would increase. This could likely be the effect of the state taxing more to match the federal highway grants. Since the federal government often required the states to use their own funds for highways, the state would need to tax for the construction of highways with aid from the federal government. Another possibility is that the state could tax the use of highways and even implement gas taxes associated with highways to increase state tax revenue.

Pre-Fixed Effects Results and Analysis:

Table 2

Explanatory Variable	Coefficient	P-Value
Per capita income	-0.002	0.764
Per capita federal grants	0.14	0***
Per capita auto registrations	44.364	0.523
Per capita agricultural revenue	-0.04	0.466
Drought	-0.918	0.314
Interaction between drought and 16 crops agricultural income	0.001	0.922
Per capita public works loans	-0.745	0.354
Percentage Illiterate	-1.357	0.051*
Per capita federal highway grants	-0.111	0.793
Constant	20.766	0.162

*****significant at 1% level**
****significant at 5% level**
***significant at 10% level**

My hypothesis was that per capita income would significantly impact per capita real state tax revenue. The regression, however, showed that the effect of per capita income on per capita real state tax revenue was not significantly different from 0, which seems confusing and is out-of-line with my hypothesis.

The coefficient of per capita federal grants has a p-value of less than .001, which means that the per capita federal grants had a statistically significant impact on per capita real state tax revenue at the 1% level. This result is what I had initially predicted. The regression coefficient of 0.14 implies that an additional dollar per person in federal grants is associated with a 14 cent per person increase in state tax revenue, which is a meaningful magnitude holding everything else constant.

The effect of the illiteracy rate is statistically significant near the 5% confidence level, since the P value was 0.051. For an additional 1% illiterate, taxes were correlated with a reduction of one dollar and thirty-six cents per person, which is a meaningful magnitude holding everything else constant. This is an effect that I had also initially predicted.

None of the other explanatory variables revealed any statistically significant impact. Although I expected more auto registrations to lead to higher per capita state tax revenues, the regression revealed that auto registrations did not actually have a significant effect on per capita real state tax revenue. Per capita agricultural income, drought, the interaction between drought and crops, public works grants, and per capita federal aid to highways were also all not statistically significant on per capita state real tax revenue. These are all contrary to what I had initially expected, since my hypothesis was that there would be at least some impact from each variable.

Results and Interpretation with Year, State, and State Time Trend Fixed Effects:

The original regression used nine explanatory variables based on narratives of the time period to analyze potential impacts on state tax revenue. However, performing a fixed effect analysis allowed us to introduce year, state, and state time trend fixed effects to take account of the attributes specific to states and years. The added effects remove the variation due to national shocks in each year, as well as time variation and trends for specific states. The estimation uses deviations from trends across time within states.

Table 3

Explanatory Variable	Coefficient	P-Value
Per capita income	-.0089	0.722
Per capita federal grants	.0106	0.899
Per capita auto registrations	557.3	0.023**
Per capita agricultural revenue	-.0997	0.166
Drought	.1926	0.83
Interaction between drought and 16 crops agricultural income	-.002	0.809
Per capita public works loans	-1.94	0.018**
Percentage Illiterate	11.33	0.00***
Per capita federal highway grants	-.6406	0.245

*****significant at 1% level**
****significant at 5% level**
***significant at 10% level**

After adding in the fixed effects to control for variation across time and location, the regression reveals more significant variables than in the previous regression.

In the previous regression, per-capita auto registrations was not significant. However, after adding the fixed effects, per-capita auto registrations became significant at the 5% level. The coefficient is positive, which we expected in our original hypothesis. The variable is economically significant because of its magnitude. The estimated magnitude is also similar to the size of the fee for auto registration in 1935 (Thorogood).

Per-capita public works loans is a variable that is similar to per-capita auto registrations because it was previously insignificant before adding in the fixed effects.

After adding the fixed effects, per-capita public works loans is statistically significant at the 5% level. An additional dollar of the public works aid reduced state tax revenue by almost $2, which seems very unlikely. The coefficient is also negative, which was contrary to my original hypothesis.

The final variable that was statistically significant was the illiterate percentage of the population. This variable was significant at the 1% level. The higher rate of illiteracy was correlated with higher tax revenue per capita. This could be due to increased spending on education or literacy programs or their subsequent effect on job creation and spending. I expected a negative coefficient in my hypothesis.

None of the other variables from the regression with the addition of state time trends, year, and state fixed effects were statically significant. I'm surprised that federal grants and income were not statistically significant because I was expecting strong positive effects. Federal grants were statistically significant until adding in the state time trends, which is also confusing.

Conclusion

The state government of Colorado, together with the federal government, implemented many programs and policies to counteract the economic downturn brought on by the Great Depression. Some measures proved more successful than others, but each played an instrumental role in revitalizing the economy of Colorado. The most critical choices by the Colorado state government were the creation of unemployment relief agencies, the support for the Public Works Program, the revitalization of silver, the repeal of the prohibition of alcohol, and the adoption of new taxes. Together, these measures allowed for a gradual increase in state tax revenue that allowed the state to spend on programs that would employ its residents and restore statewide prosperity.

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