MORE THAN THE NEW DEAL:

OHIO STATE FINANCE DURING THE GREAT DEPRESSION

By

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Abstract

Individual states varied in their responses to the Great Depression and federal New Deal programs, and these reactions affected the success of relief efforts. A combined historical and data-based econometric approach is employed to characterize the impact of state policies on outcomes.

At first, Ohio relied on charity and local governments rather than state public assistance. The state legislature was divided between rural and urban interests and few taxation mechanisms existed. Eventually, use and sales taxes were imposed, though income taxes did not prove feasible. Political squabbles and the resurgence of the Republican party somewhat derailed state relief efforts, leaving many areas dependent on New Deal programs until the national recovery took hold.

State-reported data and federal statistics were used to generate four initial econometric models of per capita state revenue. The effects of real per capita state income, real per capita federal tax revenue, per capita auto registrations, and percent of democratic representatives in the state legislature's lower house were statistically significant in at least one model, while those for the mean democratic vote percent in presidential elections from 1896 up to the most recent election and real per capita federal grants to states were not.

I. Introduction

Like the rest of the United States, Ohio was struck hard by the Great Depression. Cities dependent on manufacturing were especially affected, though farmers also faced drought conditions in the first several years. Ohio's response relied heavily on local governments and charities because relief was not viewed as a state-level task. However, local efforts were not sufficient to meet the need created by the depression, and the state did take small strides to raise revenue for relief as the decade wore on. Even so, the scale of relief mustered by Ohio and its localities was dwarfed by federal aid under New Deal programs that began in 1933 under Franklin Delano Roosevelt's administration.

A historical and data-driven analysis is employed in order to identify and understand the variables that most influence the success of relief efforts. State and federal financial statistics are used to generate four different econometric models to evaluate the impact of the explanatory variables real per capita state income, real per capita federal tax revenue, per capita auto registrations, percent of democratic representatives in the state legislature's lower house, mean democratic vote percent in presidential elections from 1896 up to the most recent election, and real per capita federal grants to states on per capita state revenue.

The success or failure of relief efforts in different states during the Great Depression is of interest because many of the strategies and challenges from that time period continue to be relevant today. The identification of helpful state policies and the response of states to federal programs aids in the formulation of effective policies to combat future recessions.

II. Narrative

Ohio faced many challenges in implementing an effective aid program, and this limited its success. The entrenched idea that local communities and governments should be responsible for relief, shared among many of the prominent political leaders throughout the Great Depression, prevented the state from taking expansive action throughout the decade. In addition, Ohio's relief laws were long outdated, and new legislation was needed to create even the semblance of an organized state relief effort. Political divides between and within counties sometimes compounded the problem, and the net result was a series of incremental and often temporary laws that made up a discontinuous and uncertain relief policy.

Early Efforts

In the first years of the Great Depression, Ohio relied on private charity and aid from local governments for relief efforts to assist impoverished residents. The prevailing wisdom was that the tough economic times would not be long-lasting and could be addressed by existing mechanisms of aid. Despite the passage of time, Ohio had made only minor revisions to the relief laws drafted in 1795 to govern the Northwest Territory.[1] An Ohio Department of Public Welfare was created in 1913 to suggest standards, but it did not have significant authority over local officials or aid programs and therefore could not make a real difference in the administration of relief.[2] Thus, when the Great Depression began, there was no effective centralized relief organization, which left township trustees responsible for relief efforts. Unfortunately, local resources were not sufficient to meet the ravages of depression and drought.

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[1] Maurer, 1962, p. 5
[2] Maurer, 1962, pp. 5-6

Beginning in 1929, cities began to divert funds from real estate tax revenues to bolster private efforts to aid their residents.[3] They often formed organizing bodies to direct the administration of relief, but the extent of aid varied widely across the state. In general, this aid was provided through direct relief rather than works programs because a larger portion of relief funds reached those in need. However, fifteen cities implemented work-relief programs, such as building programs in Cincinnati.[4] These programs occurred particularly during the winter to sustain people during the long and cold months.[5] Cities also launched sporadic garden projects, milk distribution centers, sewing projects, and various other small-scale initiatives to assist those in need.[6] There were a great many helpful projects, but even the most effective were generally small-scale and short-lived. As a result, local funds marked for relief doubled in 1930 and 1931, but this improvement was still far from adequate.[7]

Although the effort was primarily focused at the local level, the state, under Governor Myers Cooper, also made adjustments to stretch revenues further. For example, in 1930, the state highway head called for the implementation of a four-day work week in order to create more jobs.[8] Governor Cooper also created the Governor's Relief Committee in 1930 to study the relief situation, though its findings did not lead to major changes during the remainder of his term.[9]

Despite these changes, total government relief efforts remained small, growing from \$15.5 million in 1928 to \$24.5 million in 1931.[10] Over this same time period, wages dropped 46.2 percent and employment plummeted, especially in urban areas that were dependent on

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[3] Maurer, 1975, pp. 78-79
[4] Fess, 1937, p. 384
[5] Maurer, 1962, p. 13
[6] Maurer, 1962, p. 13
[7] Maurer, 1962, p. 6
[8] Fess, 1937, p. 394
[9] Maurer, 1962, p. 10
[10] Maurer, 1962, pp. 10-11

factories for their livelihoods.[11] Because of the large disparity between the people's need for relief and actual government expenditures, Ohio relied far more heavily on private charity than other states did during these early years of the depression. However, even the sum of government and private aid was insufficient, leading Toledo residents to demonstrate for relief beginning in 1930. The *Toledo News-Bee* declared in September that aid supplied "just enough food and clothing to keep off actual death."[12] Cleveland followed with demonstrations in January 1931.[13]

Governor George White, 1931-1935

Democrat George White took office as governor in January, 1931, ending a long period of Republican dominance. State governments in general became more Democratic during the Great Depression. For example, Ohio and its neighbors transitioned from largely Republican control to Democratic control in the lower house of the state legislature as the decade continued, as shown in Figure 1.[14] White was avowedly conservative and, like his predecessor, believed in local relief efforts rather than state ones. He had only pledged during his campaign to pass legislation to assist local communities deal more effectively with relief.[15] Thus, White's election did not represent ideological change. Nevertheless, many hoped that his election would result in more effective relief legislation and administration.

In 1931 and 1932, the General Assembly considered several bills that would have aided the unemployed. It passed the Pringle-Roberts Act in 1931, allowing cities and townships to sell

[11] Maurer, 1962, p. 11
[12] qtd. in Dorn, 1992, p. 36
[13] Maurer, 1962, p. 11
[14] Fishback, 2012
[15] Maurer, 1962, p. 21

a limited amount of bonds to finance additional aid.[16] Counties were granted this power in 1932. Two specific measures provided small appropriations for drought victims and for a Lake Erie harbor-improvement works program.[17] More commonly, though, bills were considered and then summarily killed. The Commission on Unemployment developed an unemployment insurance bill called the "Ohio Plan" that would have provided up to $18.75 in aid per week, but it failed to garner enough votes in the legislature.[18] State senator Robert A. Taft sponsored an unsuccessful proposal to reorganize and consolidate welfare efforts in each county in order to improve efficiency. A cigarette tax to fund relief and a welfare bond plan were also killed in the General Assembly in 1931.[19] In general, state efforts were undertaken to provide minor and general aid to localities and to help fund specific, limited programs in particularly hard-hit areas. Other efforts failed in the legislature.

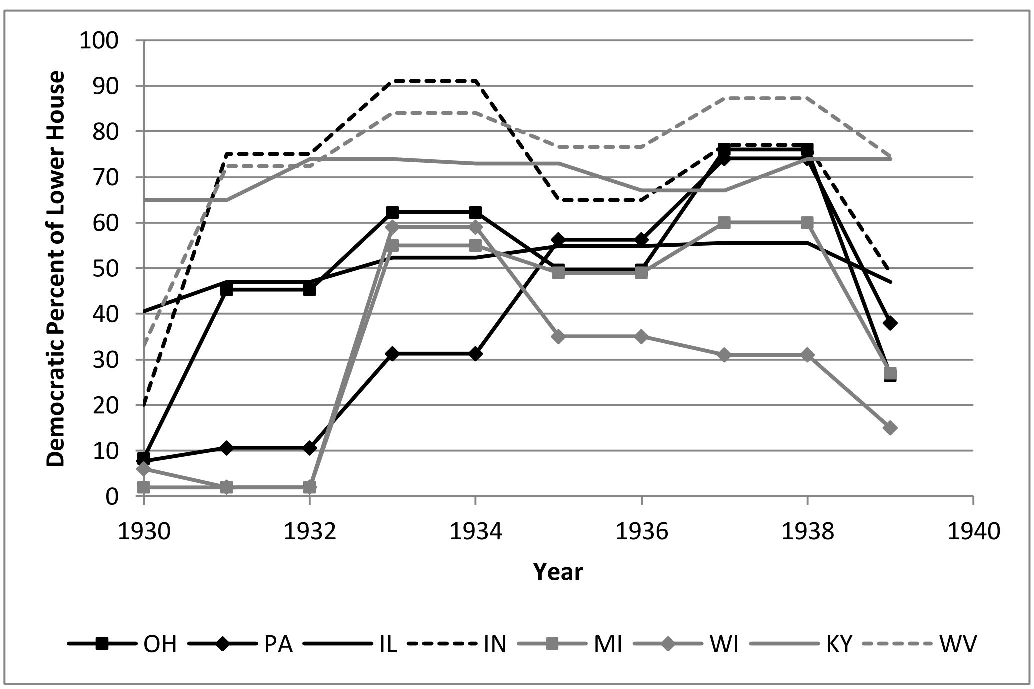

Figure 1: Democrat representation in the state legislature lower house in Ohio and nearby states

[16] Maurer, 1962, p. 22
[17] Maurer, 1962, p. 23
[18] Dorn, 1992, p. 23 and Maurer, 1975, p. 79
[19] Fess, 1937, pp. 407, 409

It is worth noting that Ohio's tendency to view relief as a local responsibility was mirrored by the federal government and President Hoover's administration at the time. Hoover had created the President's Emergency Committee for Employment (PECE) in 1930 and the President's Organization for Unemployment Relief (POUR) in 1931 in response to the depression.[20] These programs emphasized local control and responsibility and were voluntary as well as ill-funded. Ohio's political leaders approved because they fit into the state's traditional outlook and did not impose additional financial burdens on the state government. However, like Ohio's efforts, these federal organizations proved inadequate, especially during the winter of 1931 to 1932.

Factors Contributing to Relief Shortfalls

These early failures to support centralized relief demonstrate that the state government at this time did not appear to view relief as something that should take place at the state level. The tradition of local aid was difficult to uproot, and, with a few exceptions, the lack of state initiative lasted throughout the decade. Many feared that dramatically changing or expanding relief would amount to socialism and destroy the work ethic and character of the people.[21] The state government was wary of increasing taxes due to resistance from chambers of commerce and from residents, and borrowing was not considered an option because state leaders believed their citizens would view that as failure.

An additional problem was the tension between urban and rural counties. In general, throughout the depression, urban counties were hit significantly harder by the depression, and

[20] Maurer, 1962, pp. 26-27
[21] Maurer, 1962, p. 9

state representatives from rural areas saw little incentive to raise taxes or otherwise enable efforts that would largely be focused outside their home districts. This is not to say that rural areas were exempt from suffering. Drought was a considerable problem for rural as well as urban areas. Beginning in February 1932, miners went on strike for seven months, and farmers declared a price holiday in September.[22] At the same time, urban areas continued to face shortages in relief funds. In response to the entire situation, S. P. Bush, state representative to Hoover's President's Organization on Unemployment Relief, declared that there was $2.75 million in unmet need during 1931 and that the predicted shortfall for 1932 was $16 million, barring any significant changes.[23]

Renewed Efforts in 1932

By 1932, unemployment, evictions, and demonstrations had rapidly increased and it was apparent that something needed to be done. Governor White was distressed enough by the desperate situation that he called a special session of the legislature in March. The General Assembly recognized the urgency and passed new legislation. Most of the changes were incremental funding measures that placed a greater burden on localities, but the state government did change banking laws to prevent further failures, pass a public utilities excise tax, and form the State Relief Commission (SRC).[24] The SRC was intended to coordinate relief efforts with federal and local governments. It was significant because the creation of a state-level organization dedicated to relief, even though it had a small budget and was relegated to an advisory role, demonstrated that lawmakers had begun to acknowledge that local communities did not have the resources to tackle the relief problem on their own. The actual parameters of its

[22] Fess, 1937, pp. 424-25
[23] Maurer, 1975, p. 79
[24] Dorn, 1992, p. 44

defined role were somewhat narrow, but the SRC itself interpreted them as broadly as possible in order to provide as much assistance as possible.[25] Despite this advance, the state and counties also slashed the salaries of public employees to balance their budgets.[26] In truth, it was politically infeasible to do much more due to legitimate concerns of voter approval and an unwillingness to take dramatic experimental action.

At the end of his term, president Hoover and Congress began to take more large-scale action. The federal government in March 1932 began providing significant in-kind aid through the American Red Cross. It distributed millions of bushels of wheat and flour as well as thousands of tons of feed and cereal and bales of cotton.[27] In addition, the Emergency Relief and Construction Act of 1932 created the Reconstruction Finance Corporation (RFC) to distribute loans to troubled financial institutions and also to provide aid to state governments. The SRC received state authorization in September to apply for and distribute RFC funds for local projects. The $18,937,305 Ohio received through the RFC before June 1933 was desperately needed and prevented many local relief efforts from collapsing, especially during the "winter of despair" from 1932 to 1933.[28]

FDR and a Mandate for Relief

With the overwhelming election of Franklin D. Roosevelt to the presidency and his own marginal reelection in 1933, Governor White attempted to make significant changes to Ohio's relief structure. Conditions were deteriorating. In 1933, statewide unemployment was at 40%,

[25] Maurer, 1962, p. 46
[26] Fess, 1937, p. 425
[27] Maurer, 1962, p. 49
[28] Maurer, 1962, p. 52 and Dorn, 1992, p. 55

with industrial areas experiencing 60% and Akron briefly topping 75%.[29] In a clearly unsustainable situation, some counties had over 70% of their population on the relief rolls.[30] In February, farmers blocked foreclosure auctions, and in March, there were riots in Cleveland, Canton, and Mansfield demanding decent relief allowances.[31] There was clear dissatisfaction with the status quo.

In his inaugural address, Governor White acknowledged the situation, stating, "Certain relief problems, however, wholly disconnected from the operations of the government have emerged from the depression and will not down [sic]. Like the others, they are financial problems. But unlike the others, they present an imperative demand for more revenue than can possibly be derived from existing sources."[32] To address such problems, he proposed a variety of ways to fund increases in relief expenditures. These mostly met with strong resistance from the General Assembly.

Early in 1933, White suggested imposing nuisance and beverage taxes to support schools and transferring funds from highway construction to relief. [33] His sales tax proposal and its revision were killed in the General Assembly in May and June.[34] However, taxes on fuel, cosmetics, and tickets were passed at the end of June and were expected to raise $30 million.[35] Partial tax relief was also offered to landlords who were housing relief clients.[36] White refused to give up on a general state sales tax and returned to the issue in early 1934, only to see it voted down again.[37] In response, White closed the General Assembly in early May and sent legislators

[29] Van Tine, 2003, p. 247
[30] Maurer, 1975, p. 77
[31] Fess, 1937, p. 429 and Maurer, 1975, p. 77
[32] qtd. in Maurer, 1962, pp. 59-60
[33] Maurer, 1975, p. 81 and Maurer, 1962, p. 63
[34] Fess, 1937, pp. 434-45
[35] Fess, 1937, p. 425
[36] Maurer, 1962, p. 66
[37] Fess, 1937, p. 442

home.[38] It reopened in late November to review taxation and funding measures. After much political debate, during which Governor White threatened to veto the sales tax bill if it did not also include a state income tax, a 3% state sales tax was finally passed without an income tax.[39] In its first year, the sales tax raised $47,848,866, which was used primarily for relief.[40]

During this time, Ohio also passed a need-based old age assistance plan. In the November 7, 1933 general election, voters had established the program by the initiative process, but payments were far below the specified maximums.[41] After debates lasting through 1933, the General Assembly passed a $3 million pension law to fund it beginning in July 1934.[42]

New Deal Programs – FERA, CWA, and AAA

Despite these efforts, Ohio's initiatives were dwarfed by the magnitude of federal New Deal programs and expenditures that began in 1933. The state response was of limited effectiveness because Ohio leaders were waiting to see what the federal government led by Roosevelt would do. In retrospect, it is unlikely that individual states like Ohio would have been able to adequately respond to the Great Depression without federal aid even if they had mounted large-scale, centralized operations early in the crisis. In May, the Federal Emergency Relief Administration (FERA), headed by Harry Hopkins, began to disburse significant aid to the states. This program grew out of the more limited Emergency Relief Administration created by President Hoover in 1932. Ohio's SRC, created in 1932, quickly grew in influence when it was selected by Hopkins to administer relief funds.[43] The SRC rapidly expanded its staff and set up

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[38] Fess, 1937, p. 442
[39] Fess, 1937, pp. 447-48
[40] Knepper, 1989, p. 372
[41] Maurer, 1975, p. 90 and Ohio State General Assembly, 1934
[42] Fess, 1937, p. 441
[43] Maurer, 1975, pp. 81-82

formal county relief organizations in 30 counties and worked with county commissioners, city officials, township trustees, and voluntary county relief committees in the other 58.[44] The SRC created the Work Project Development Committee in March 1933 to plan small projects. FERA was in operation from May 1933 until December 1935, and during this time, Ohio's SRC directed funds to transient relief programs, emergency education measures, college student aid, the Ohio Rehabilitation Corporation (ORRC), and the self-help cooperative Ohio Relief Production Units (ORPU), among others.[45] Additionally, in August, 1933, Ohio acted upon changes in the Federal Housing Act and began to utilize federal funding to create metropolitan housing developments.[46]

An additional New Deal program, the Civil Works Administration (CWA), distributed funds for large-scale work projects from November 1933 through March 1934 to help people survive the winter. The CWA was technically a separate agency, but in the state, it operated through FERA and the SRC. In Ohio, these projects were managed by chief engineers in each of the state's 29 state engineering districts. In the months that the CWA was effective, Ohio received $57,985,555 that it used to undertake approximately 6000 work projects, nearly half of which were completed before the program ended.[47] Unfortunately, Ohio's workers did not always receive the federally recommended wages due to the vast number of people on the relief rolls. The result was that workers in the CWA increased but federal funds did not, leading to lower wages per worker. On the other hand, there was a psychological benefit in that the unemployed generally preferred works projects to direct aid because work projects restored self-

[44] Maurer, 1975, p. 82
[45] Maurer, 1975, p. 83
[46] Knepper, 1989, p. 369
[47] Maurer, 1975, pp. 83-84

respect, despite relatively high injury rates due to lack of training.[48] The CWA was sufficiently successful that the mayor of Toledo protested its loss when it ended, despite its replacement by the FERA Works program.[49]

The Agricultural Adjustment Act (AAA) was also passed in 1933 and helped farmers to cope with falling prices as well as the drought conditions that had coincided with the onset of depression. It did this by providing incentives to reduce inventories in an effort to raise produce and livestock prices and also by implementing crop rotation programs to enrich the soil. Although the program was ruled unconstitutional in 1936, other programs continued its goals. The AAA and federal farm programs were important factors in the more than doubling of Ohio's farm revenues from $157,138,000 in 1932 to $355,553,000 in 1937.[50] As shown in Figure 2, other nearby states such as Indiana, Illinois, and Kentucky received an even greater benefit from the AAA program.[51]

FERA and the CWA came at an opportune time for Ohio. The shortfalls in relief funds and general unrest in 1933 and 1934 could not have been addressed using only Ohio's efforts. In 1933 alone, the state received $27,893,872 in federal funds.[52] In Toledo, where 21% of families were on relief, the federal government was the largest employer in the city and sometimes employed more people than the 54 largest manufacturers combined.[53] The flow of federal funds began in May, and in June, Ohio's own contributions to relief fell to $161,949, their lowest levels yet.[54] State expenditures began to rise again following the passage of the additional tax measures passed in 1933 and 1934; however, federal funds still made up 77.76 percent of relief

[48] Dorn, 1992, p. 149; Maurer, 1962, p. 81
[49] Dorn, 1992, p. 90
[50] Knepper, 1989, p. 373
[51] Fishback, 2012
[52] Maurer, 1975, p. 81
[53] Dorn, 1992, pp. 80, 148
[54] Maurer, 1975, p. 81

expenditures in the state.[55] Ohio contributed less to the effort on a per case and a per capita basis than other neighboring states and the national average. This remained true until March 1937 and created tensions with the federal government.[56]

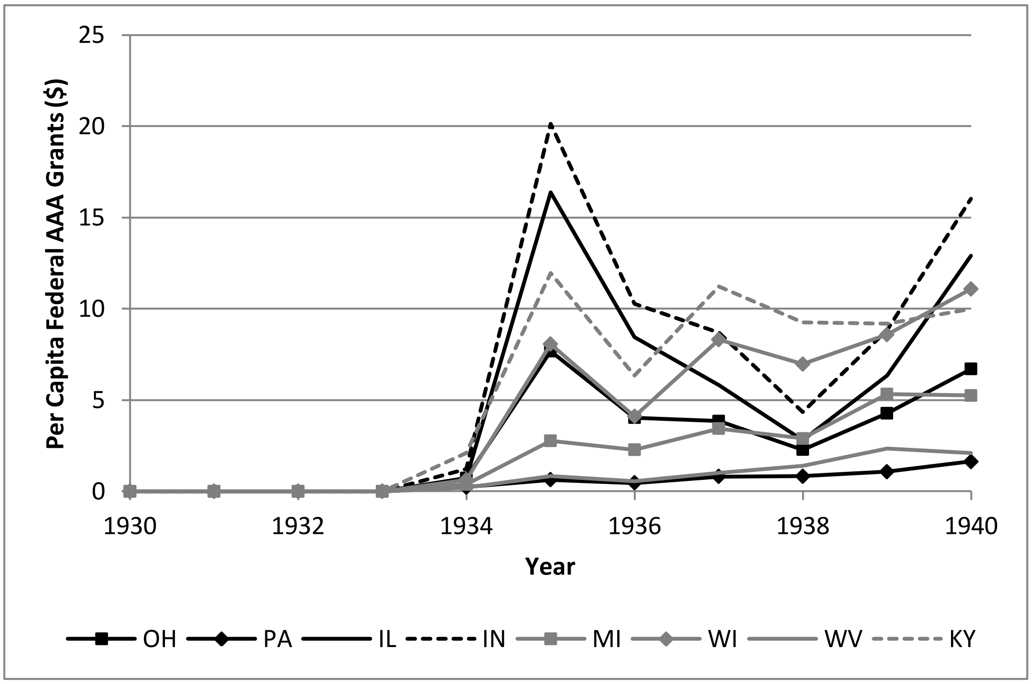

Figure 2: Per capita federal AAA grants to Ohio and neighboring states

The FERA and CWA programs faced many issues that limited their effectiveness in the state. First, there were logistical problems arising from rapid implementation and unprepared local organizations. In addition, there were several charges of corruption in hiring employees for the county relief organizations, which tended to be groundless but consumed vital time and were even brought to the attention of Harry Hopkins.[57] Several local organizations faced political battles that severely restricted their ability to aid their residents. For example, Fairfield County left many families without shelter because of political polarization among the county

[55] Maurer, 1962, p. 104
[56] Maurer, 1962, p. 105
[57] Maurer, 1962, pp. 82-83

commissioners.[58] In these cases, little could be done because the distribution of funds was dependent on local participation. Finally, a significant minority of the population in need of assistance did not see its lot improve even in counties with effective programs. Approximately ten percent in Belmont County faced this situation.[59] Relief was sometimes simply inadequate in spite of the massive contributions made by the federal government.

At the same time, high-profile state officials sometimes clung to the status quo and resisted New Deal efforts. For example, Republican Senator Simeon D. Fess, who had been in Congress for a decade, claimed, "Karl Marx never approached in his program the degree of socialism that the New Deal is announcing, on the one hand, and the demand upon Congress on the part of the Executive to delegate complete power of Fascism to him, on the other."[60] Many politicians in Ohio remained skeptical of federal involvement throughout the decade, which sometimes limited the scale and effectiveness of relief.

Governor Martin L. Davey, 1935-1939

In January 1935, Martin L. Davey took over for White as governor. Davey proved to be a polarizing figure with a temper and flamboyance that made him many enemies during his two terms as Governor. Near the end of his term, Governor White continually tried to persuade the General Assembly to raise taxes, all the way up to and including the day of Davey's inauguration.[61] White had reason to be concerned. Though Davey was also a Democrat, he opposed the idea of federal aid and criticized FERA as immoral and wasteful. Part of his opposition may have been the shortfall Ohio continually faced between its contribution to relief

[58] Maurer, 1962, pp. 102-103
[59] Maurer, 1962, p. 102
[60] qtd. in Nethers, 1973, p. 386
[61] Maurer, 1962, p. 133

and the contribution expected by the federal government as a condition for federal aid. Davey was firmly against raising taxes to support the relief effort, and meeting the funding obligation of FERA would almost certainly necessitate raising taxes.

Davey also was guilty of using the relief organization to his advantage, particularly with patronage. Upon taking office, he fired several state relief officials and replaced them with his followers. While many politicians in this era employed this kind of political tactic, Davey took it further than most. He angered many state legislators, who responded by refusing to renew the SRC, which had been coordinating the entire relief effort in Ohio. When the SRC folded on March 1, 1935, Harry Hopkins of FERA ordered Davey to take over management of relief in Ohio.[62] The vacancy left by the SRC made Davey's new and unwanted job difficult. Instead of accepting his federally-assigned role and trying to provide effective relief, Davey created additional controversy by charging state relief, and particularly the Cuyahoga County Relief Administration (CCRA), with corruption and inefficiency. Despite support for the CCRA from community leaders, businesses, and even Harry Hopkins, the governor stood his ground.

Political Battle with Harry Hopkins

The situation climaxed in a showdown between Harry Hopkins and Governor Davey in February. Several other states, such as Illinois, Kentucky, Louisiana, and North Dakota also had conflicts with Hopkins around this time.[63] Davey had dismissed Charles C. Stillman, the FERA administrator in Ohio, due to his refusal to cave to Davey's demands of patronage.[64] In addition, Davey wrote to Hopkins asking the federal government to take over relief in Ohio because of

[62] Vazzano, 2008, p. 194
[63] Vazzano, 2008, p. 202
[64] Maurer, 1975, p. 92

waste that he, as governor, did not have the resources to mitigate and could not support.[65] Hopkins attacked the governor, claiming Davey cared little for the poor, and held Ohio to its $2 million monthly relief obligation. In response, Davey rebuffed Hopkins's demand, failing to ask the General Assembly to raise taxes to meet Ohio's relief obligation. Ohio relief could very well have broken down at this point, since Hopkins had legal precedent for denying funding, but State Auditor Joseph Tracey took action to fund relief by diverting $1 million of state sales tax revenues.[66] Unfortunately, though federal relief funding continued, the controversy remained unresolved.

Despite Hopkins's initial refusal to assume control of relief in Ohio, investigations revealed enough issues with Davey's relief operations that he changed his mind.[67] As a result, Hopkins brought the problem to President Roosevelt's attention, and Roosevelt instructed him "to assume entire control of the administration of Federal relief in the state of Ohio".[68] Hopkins placed Charles C. Stillman in control of Ohio relief and, after investigation, accused Davey of extortion in campaign fundraising. This created a sensation in the state newspapers, and a few Ohio legislators, such as Robert Pollock, called for Davey's impeachment. Davey defiantly called Hopkins a liar and issued a warrant for his arrest on the basis of libel.[69] In the end, no definitive evidence could be mustered for the extortion charges against Davey, the conflict died out, and Davey removed the libel charge. Even so, Ohio only contributed $8,514,075 to relief in 1935, far below the $24 million stipulated by the federal government as a condition for federal aid.[70]

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[65] Vazzano, 2008, p. 195
[66] Vazzano, 2008, p. 196
[67] Dorn, 1992, p. 111
[68] qtd. in Vazzano, 2008, 197
[69] Maurer, 1975, p. 92
[70] Maurer, 1962, p. 134

Politics and Lawmaking

Although he was never convicted of any wrongdoing, Governor Davey's political capital was somewhat damaged by his conflict with Harry Hopkins. Davey faced several other charges of corruption that also diminished his ability to lead. In an attempt to bestow patronage on his supporters, he asked all state employees about their political affiliation, earning him unanimous censure from the state Senate, even though it was dominated by Democrats.[71] He was also accused of mismanaging the state liquor department, which had set up a state monopoly on the liquor business in 1933 when Prohibition ended, by using revenues from liquor licenses for his own political gain.[72] The governor called for an investigating committee, which launched a five-month investigation and offered several suggestions to increase efficiency. Strangely, considering Davey's own charges of inefficiency and waste, Davey took these suggestions as personal attacks and rued his support for the investigation.[73]

Whether because of his governing style, personal qualities, or actual policy preferences, Davey continually clashed with the General Assembly. In the aftermath of the Hopkins conflict, the legislature had managed to pass a 1% tax on utilities.[74] However, in September, 1935, Hopkins refused to support a state bond issue that would have created a new state relief organization to replace the SRC.[75] Because Davey had prevented a centralized effort for relief, the Assembly returned to temporary and small-scale appropriations to treat symptoms of the depression and deal with natural disasters. These small measures had fluctuating revenues due to the conditions of the depression.[76] In 1936, the General Assembly again tried to set up a

[71] Vazzano, 2008, p. 206
[72] Vazzano, 2008, p. 209
[73] Vazzano, 2008, p. 209
[74] Vazzano, 2008, p. 202
[75] Maurer, 1962, p. 136
[76] Dorn, 1992, p. 151

centralized relief body, and successfully created a weak State Relief Commission with a six-month lifespan.[77] However, it was not renewed, and in July, 1936, Ohio again lost its state relief organization.

Davey did help to avert a school funding crisis in 1935. In 1933, an amendment to the Ohio Constitution had been passed by popular vote that limited property taxes to ten mills. Because the reigning rate had been 15 mills, property tax revenues fell by a third and schools and local governments suffered funding cuts.[78] Davey proposed using revenues from general sales, gasoline, cigarette, and various other state taxes to fund schools. The bill passed the state Senate quickly but was stalled in the Republican-controlled state House for months until it finally became law on June 12, 1935.[79] The funding helped revive those schools that had not yet permanently closed. At the same time, Davey drastically cut funding to the Ohio State University, despite its objections and threats to cancel the rest of the football season.[80]

WPA

The FERA and the CWA were intended to be temporary measures and ended in 1935 and 1934, respectively. On April 8, 1935 President Roosevelt signed the Emergency Relief Appropriation Act of 1935, which created a dedicated federal works program. One of the agencies, the Works Progress Administration (WPA), was particularly important to Ohio.

The WPA was a revision of the CWA, which had only been intended to act as an emergency measure for the winter of 1933-1934, and also of the FERA Works Program. The WPA took 90% of its workers from relief rolls, a significant increase from the 50% of the

[77] Maurer, 1962, p. 137
[78] Dorn, 1992, p. 150 and Vazzano, 2008, p. 210
[79] Vazzano, 2008, p. 210
[80] Vazzano, 2008, p. 211

CWA.[81] The remaining 10% were skilled workers to ensure projects were completed correctly. Projects were chosen to be located in areas with a large number of people on relief rolls, to match the skills of the relief workers, and to benefit the community.[82] The WPA in Ohio built roads, constructed public buildings and parks, put youth to work through the National Youth Administration (NYA), instituted education and public health improvements, completed research and statistical surveys, and put writers and artists to work.[83] The federal government, operating through the WPA, continued to be Toledo's largest employer, and fully one-fifth of the population remained dependent on local, state, and federal aid.[84] The scale of federal public works programs in Ohio and other Midwest states throughout the 1930s is shown in Figure 3.[85]

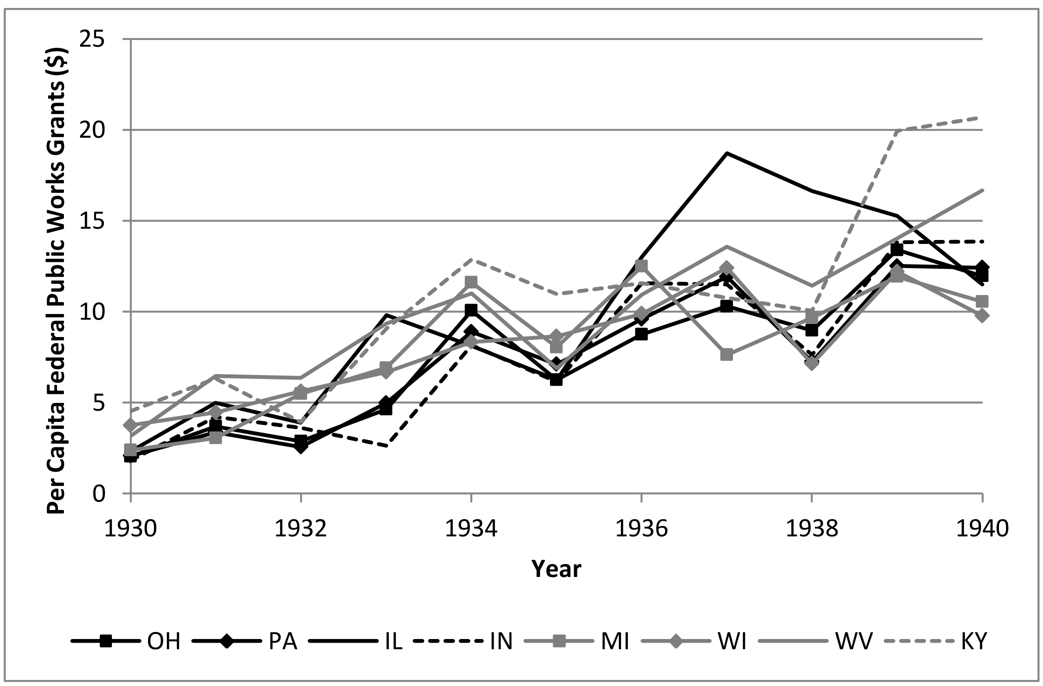

Figure 3: Per capita federal public works grants to Ohio and nearby states

[81] Maurer, 1962, p. 109
[82] Maurer, 1962, p. 109
[83] Maurer, 1962, p. 109
[84] Dorn, 1992, pp. 123, 126
[85] Fishback, 2012

The WPA administration in Ohio grew out of that of FERA. FERA Director Charles C. Stillman became the first administrator of WPA on July 1, 1935.[86] The county director system was replaced with a district director model. There were originally sixteen districts, but these were eventually reduced to six because administrative control was better, costs were lower, and more qualified administrators could be found.[87] There was an Operations Division in charge of state approval and planning for construction projects, a Division of Women's and Professional Projects that did the same for non-construction projects, a Division of Employment to select and classify workers and determine hours and wages, and a Division of Finance in charge of payrolls and recordkeeping.[88] In general, the WPA operated smoothly in Ohio and most of the complaints were political in nature.

Uncompleted FERA projects were transferred to the WPA, but new projects took longer to move through the new and complex approval process. Growth was fairly rapid, and the WPA completed many public works while also employing 297,067 workers at its peak in 1938.[89] Ohio faced increasing relief funding problems as well as a deepening recession beginning in 1937. As a result, it tended to rely heavily on the WPA, especially in 1938 and 1939, when Ohio had 30% more people working on WPA projects than the national average.[90] Figure 4 shows the rise in per capita federal relief grants to Ohio relative to neighboring states in 1939. Figure 5 illustrates the same phenomena with total per capita federal grants.[91]

[86] Maurer, 1962, p. 109
[87] Maurer, 1962, p. 111
[88] Maurer, 1962, pp. 111-112
[89] Maurer, 1962, p. 121
[90] Maurer, 1962, p. 121
[91] Fishback, 2012

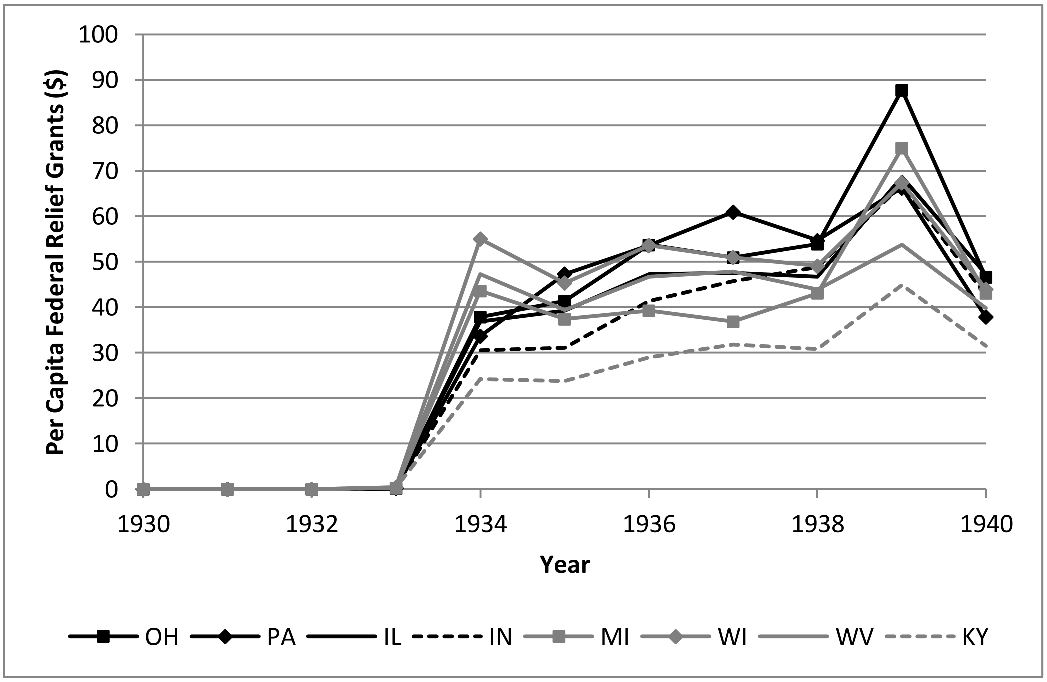

Figure 4: Per capita federal relief grants to Ohio and nearby states

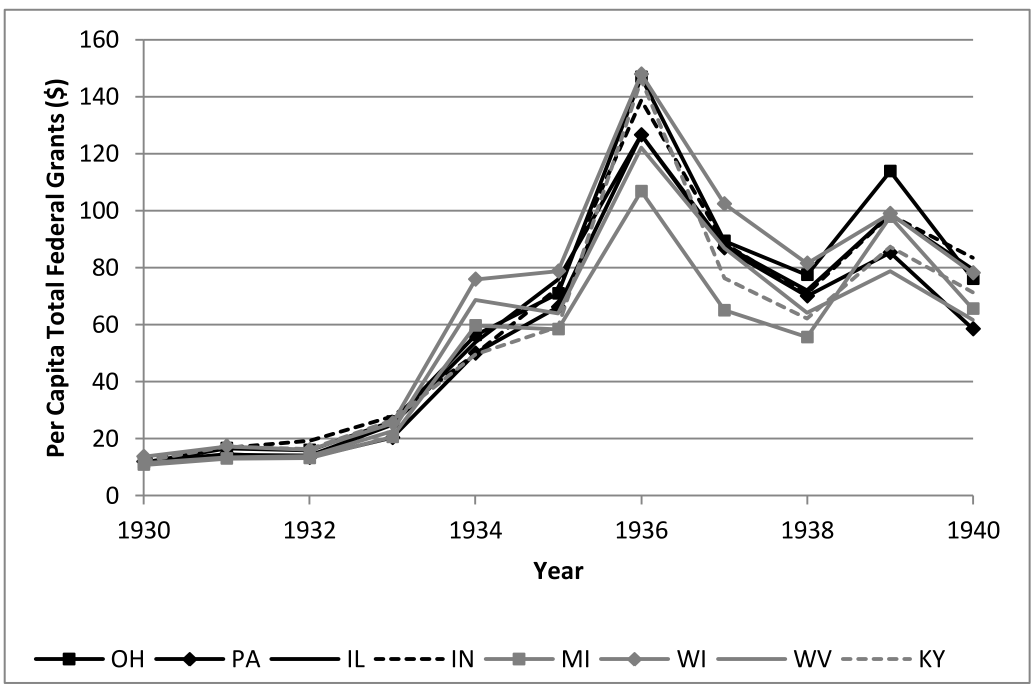

Figure 5: Per capita total federal grants to Ohio and neighboring states

Ohio relied so heavily on the WPA because it had not prepared for the change from FERA to the WPA and the new restrictions on the use of federal funds. FERA had only been intended as a temporary measure to help states reassume relief responsibility. The WPA thus asked states to take on a larger financial burden of relief for the unemployed. Ohio, already lagging behind on its expected contributions under FERA, was not ready to assume more responsibility. It had not updated its relief law despite recommendations from the federal Committee on Economic Security that had recommended transitioning from FERA to the WPA.[92] It was forced to support 60-70% of the unemployed without federal assistance because the WPA only employed 30-40% of those needing relief.[93] This was a problem because the state had only been supplying a minor portion of total federal, state, and local relief expenditures prior to the WPA, and politics prevented it from assuming a larger share even after the WPA was established.

Reelection and Renewed Hostility

Governor Davey won reelection by a slight margin in 1936 against Republican challenger John W. Bricker in a brutal, personal, and caustic campaign. If not for Roosevelt's enormous popularity in Ohio and the difficulty of splitting the ballot for president and governor, Davey may well have lost.[94]

Davey's trouble with the General Assembly continued when in March, 1937, several large cities claimed that local funds had dried up, compromising relief. Optimism about the lifting depression had led to diminished relief expenditures at the state and federal levels, which

[92] Maurer, 1962, p. 124
[93] Maurer, 1962, p. 124
[94] Vazzano, 2008, p. 229

brought a renewed onset of recession.[95] Davey asked the Assembly to help the cities fund their efforts, but it refused. Legislators from rural counties continued to block efforts that would primarily help urban counties, even though some rural counties actually spent less per relief case than they received from the federal and state governments.[96] Many were becoming fed up with state officials' unwillingness to help the needy, though the governor bore the brunt of the criticism because, as an individual, he was an easier target than the legislature. A poem distributed by the Worker's Alliance in Cuyahoga County read:

> If our darling Governor Davey had to get relief,
> He'd holler plenty and he wouldn't be brief,
> But we ask for relief,
> And all we get is a lot of grief.[97]

However, in April, Davey asked for and got an overhaul of the relief law that included a centralized body with a state relief director and county administration of relief.[98] Even so, the new body did not receive funding, causing a crisis.[99] Despite his campaign promise not to raise taxes, Davey proposed tax increases to help fund the relief effort. When the Assembly again refused, he threatened to send the National Guard into soup kitchens. Apparently this ridiculous proposal was effective, because in November, 1937, $17 million was appropriated for relief for the rest of 1937 and 1938.[100] In some cases, Davey delayed the process despite his advocacy for relief, such as when he refused to sign a personal property tax bill for weeks.[101] However, even with renewed support for relief, state relief expenditures dropped by $6,658,416 from 1936 to 1937.[102]

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[95] Dorn, 1992, p. 134
[96] Vazzano, 2008, p. 232 and Maurer, 1975, p. 98
[97] qtd. in Maurer, 1962, p. 139
[98] Maurer, 1962, p. 138
[99] Dorn, 1992, p. 131
[100] Vazzano, 2008, p. 232
[101] Dorn, 1992, p. 132
[102] Maurer, 1962, p. 232

Beginning in May, 1937, Davey also had to deal with a strike and shutdown of the unions against Republic, Inland, and Youngstown Sheet and Tube. Approximately 11,000 workers took part in the strike. "Little Steel," as the industry was nicknamed, refused to negotiate with the mob because it claimed there was nothing to negotiate – the union did not want to change wages or hours. Instead, it sought to force the industry to sign a contract, and as Tom Girdler, chairman of Republic Steel, worried, later impose a closed shop and checkoff system.[103] The strike grew violent and yet showed no signs of letting up. Governor Davey scheduled meetings with both sides and was unable to forge a compromise. Concerned, Davey turned to President Roosevelt. Roosevelt, wishing to stay out of the situation, formed the Federal Remediation Board, which was unsuccessful due to the steel bosses' refusal to consider a compromise.[104] In the end, the governor had to take action to prevent violence and sent the National Guard in to keep open plants that were open and keep closed those that were not.[105]

In addition, Governor Davey faced considerable personal acrimony from state Senate Democrats. Eighteen of them partnered with five Senate Republicans to form an anti-tax bloc. In addition, they cut his budgets dramatically and thus became known as the "hatchet men".[106] When Davey called them out for again blocking his 1938 budget, Paul Yoder, former majority leader and new lieutenant governor, organized an investigating committee to thoroughly scour Davey's entire administration and history.[107] The investigations descended into something of a witch hunt, with Yoder commenting, "Never put off until tomorrow what you can do to Davey."[108] For the remainder of Davey's term, activities of the General Assembly consisted of

[103] Vazzano, 2008, p. 234
[104] Vazzano, 2009, pp. 236-37
[105] Vazzano, 2008, p. 237
[106] Vazzano, 2008, p. 239
[107] Vazzano, 2008, p. 239
[108] qtd. in Vazzano, 2009, p. 239

investigations, at the expense of relief or dealing with other pressing state problems.[109] Davey's combative personality did not help the situation.

Although Davey sought another term, Democrats did not support him, and he lost the primary to Charles Sawyer. It had been a particularly nasty race, and the two candidates developed a mutual enmity. Davey, the first incumbent governor in Ohio's history to be denied renomination by his own party, refused to support Sawyer in the general election, despite their similar views on policy issues.[110] This left the door open for John W. Bricker, the unsuccessful Republican candidate in 1936, to win the election in 1938, even though his policy positions were less than clear.

John W. Bricker, 1939-1945

As a Republican, Bricker was even more resistant to changing the local relief model than his Democratic predecessors had been. Under his administration, the General Assembly continued to pass small and specific appropriations laws to deal with particular situations in the counties. The number of relief cases rose from 86,737 in 1938 to 94,161 in 1939, but relief expenditures fell by almost $2 million over the same time period.[111] The burden fell to localities and the WPA more heavily than before.

Cities, particularly Toledo and Cleveland, were not able to provide an adequate level of relief. In December, 1939, Republican Mayor Harold H. Burton of Cleveland claimed that the inability of Cleveland to provide sufficient relief to its inhabitants was due to the failure of the state government.[112] Burton charged that Bricker's insistence on balancing the budget (even

[109] Maurer, 1962, pp. 140-41
[110] Vazzano, 2008, p. 252
[111] Maurer, 1962, p. 142
[112] Maurer, 1975, p. 97

maintaining a surplus) and refusing to contract state debt was a scheme to protect his political image at the expense of the well-being of Ohio.[113] Other critics agreed and added that the governor and rural lawmakers had forged an alliance at the expense of urban counties.

Despite Bricker's unwillingness to raise funds for relief and ideological clashes with the popular federal administration, he managed to secure two additional terms as governor. This was primarily because of improving economic conditions rather than any specific actions undertaken by his administration. Beginning in 1940, the unemployment rate began to fall and Ohio started to climb out of recession. Ohio's relief problem was largely alleviated by external circumstances the state had little control over.[114]

[113] Maurer, 1962, p. 145
[114] Maurer, 1962, p. 146

III. State Financial Data

In order to quantitatively evaluate the factors that influenced state spending during the 1930s, state financial data are required. Unfortunately, the federal state financial statistics are missing data between 1932 and 1936.[115] To fill in this gap, statistics from the states themselves were obtained and sorted into the categories established by the federal statistics.[116] This was a difficult process because the state data often were incomplete and potentially redundant, and the reporting format varied across states. After this process, the 1937 state statistics were compared with the federal statistics. This comparison sometimes showed agreement between the data sets and other times showed items differing by orders of magnitude. Despite the limitations of the state data, they were used for 1932-1936 in order to bridge the gap in the federal statistics during these key years of the Great Depression and New Deal.

In doing the sorting, many assumptions were made, as individual state items often did not align perfectly with the federal categories. Some items did match well, but the disparities demand more consideration because state data are needed to bridge the five-year gap in the federal statistics. These discrepancies, as well as the discretionary decisions made in categorizing data for the state of Ohio, are summarized here.[117]

There were several differences between the federal statistics and Ohio's statistics for Ohio's revenue from taxes. Ohio did not list any property tax revenue in the state statistics. However, the federal government reported approximately $10 million for 1937. Ohio also did not report inheritance and estate tax revenue, which amounted to $2.2 million in the federal statistics for 1937. In the final categorization, there are discrepancies in revenue from sales

[115] Fishback, 2012
[116] Massachusetts; Michigan; New Mexico Annual Report; New Mexico Biennia Report; New York; Ohio Annual Report; Oklahoma; South Carolina
[117] Ohio Annual Report

taxes, business license taxes, and non-business license taxes. This could be due to the miscategorization of an item into one of these three categories due to limited item information.

Revenue from non-tax sources was more different between the data sets. Several federal grants reported by the federal government are not reported by Ohio. However, the federal highway grants matched up perfectly. Conspicuously missing from Ohio's data is public assistance and relief, which amounted to $16.6 million in 1937 in the federal statistics. In addition, Ohio failed to report rent from investments and interest, which totaled approximately $5 million in the 1937 federal statistics. Contributions from the alcoholic beverage monopoly ($7 million in 1937 according to the federal data set) are not reported by state, though some of this revenue may have been categorized as tax revenue rather than a contribution. Even so, the tax revenues for alcohol-related activities tend already to exceed the federal reported data. Finally, the charges for current services category is a major issue, as the state seems to report almost $66 million while the federal government reports just $6.5 million. There is potentially double-counting occurring in the state data, which is supported by the fact that total revenues reported by the state are significantly higher than those reported by the federal government. Consideration should be given to removing this category from total state revenue in future versions of the compiled database.

In general, the expenditures category matched up better than the revenues did. Rotaries and state funds were excluded from the categorization because double-counting was suspected. When these items are left out, the total expenditures are very close to the reported federal values.

The resulting total values of Ohio state revenues and expenditures during the 1930s are shown in Figure 6. Revenues from tax and non-tax sources are further delineated. The vertical dashed lines bound the years 1932-1936 where state-reported data are used exclusively, while federal statistics are used for the other years. Upon visual inspection, the state-reported values are of comparable magnitude to the federal values, and the general upward trend for both revenues and expenditures holds across the decade. Revenues from taxes make up the majority of total revenues and increase approximately five-fold from 1931 to 1940. In addition, revenues always exceed expenditures. These results are consistent with the historical narrative. Most significant state taxation efforts, particularly the state sales tax, began to go into effect in 1934 and 1935. In addition, Ohio did not run a deficit during the Great Depression.

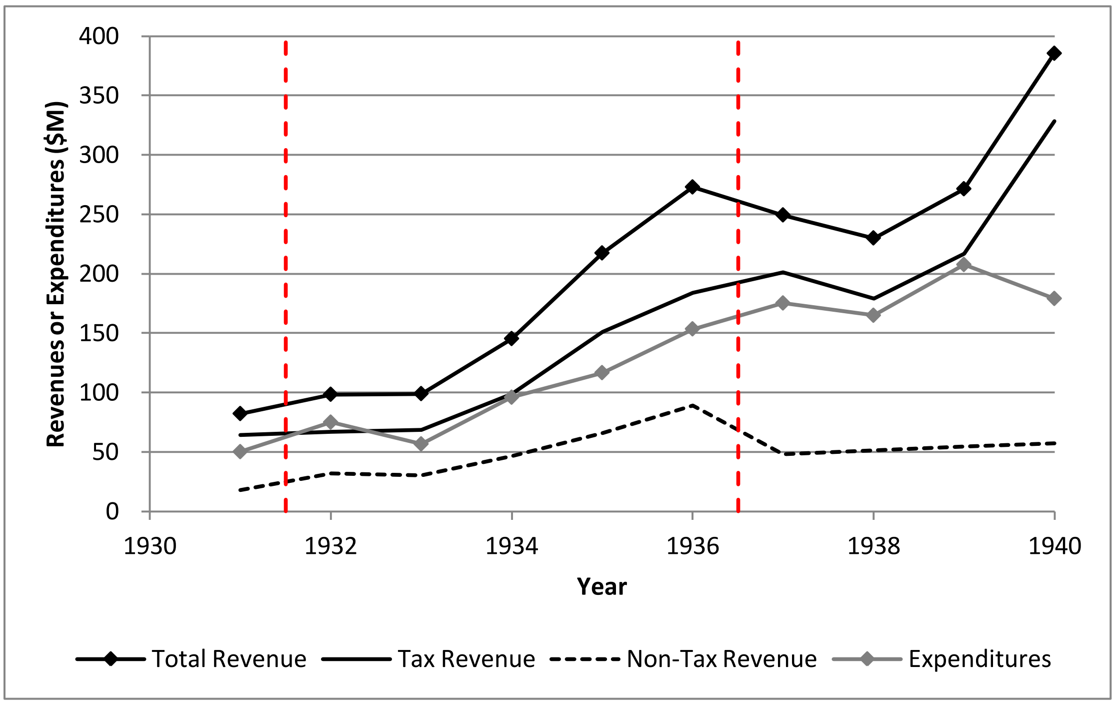

Figure 6: Ohio revenues and expenditures during the 1930s

IV. Regression Analysis

Although the data set is not yet complete for all states and the data for 1932-1936 are of limited validity due to the use of state-reported statistics, an initial regression can provide important information about which factors affect real per capita state revenue. Data from the thirteen states Connecticut, New Hampshire, Rhode Island, Pennsylvania, Michigan, Ohio, Minnesota, Nebraska, Oklahoma, Colorado, New Mexico, Washington, and Virginia were used in this analysis. This initial regression analysis attempts to explain the variation in real per capita state revenues (excluding federal grants) using six explanatory variables and a number of dummy variables. The explanatory variables and their expected impact on state revenue are described below.

Variables

The first explanatory variable is estimated real per capita state income. The variable was chosen because taxes were one component of state revenue. Taxes tended to rise with income, whether they were direct state income taxes or more indirect taxes such as sales or use taxes. Thus, the coefficient is expected to be positive.

The next explanatory variable, real per capita federal tax revenue was chosen because the federal tax level may have influenced the state tax level. There are two potential but opposing relationships between state and federal tax revenue. If federal taxes increased, the state may have reduced its taxes to limit the tax burden on individuals. However, during the Great Depression, state incomes were falling, dragging tax revenues down with them. It is possible that both federal and state governments might have raised tax rates in order to continue funding necessary government functions. It is difficult to predict the relative magnitude of these effects, so the overall sign on the coefficient for federal tax revenue is uncertain.

The mean Democratic vote percent in presidential elections from 1896 up to the most recent election was selected as an explanatory variable because the political history and identity of a state may have impacted the state's response to the Great Depression. This variable is a measure of how Democratic or Republican the state has been historically. There is a slight issue with this variable in that there was a realignment of the political parties between 1896 and the 1930s, but it may still help to distinguish states and their historical political background. Consistently Democratic states may have been more likely to implement new taxing schemes to fund greater relief efforts, so we might expect a positive coefficient in the regression with state revenue.

The level of per capita automobile registrations was also chosen as an explanatory variable because it was a direct component of state revenue and may also have captured the wealth structure of each state. In many states, the use of automobiles was a source of state revenue through registration and license fees as well as motor fuel taxes. State revenue may thus have been positively correlated with automobile registrations. However, the level of per capita auto registrations also reflects the socioeconomic structure of each state. Since owning a car in the 1930s indicated that a person was fairly wealthy, a higher level of auto registrations signifies a wealthier population. During this period, the tax structure in most states was regressive due to its reliance on sales taxes and use taxes. A regressive tax structure means that less wealthy individuals pay a larger effective tax rate than wealthier individuals, simply because they spend more and save less of their income. For this reason, a higher level of per capita auto registrations may correlate with lower state revenues due to the regressive tax structure. The predicted sign for the coefficient on auto registrations is thus uncertain.

Real per capita federal grants to states was selected as an explanatory variable due to the large influx of federal money states received from a variety of New Deal programs. States receiving federal grants might have been tempted to decrease taxes and revenues, but federal policy often required (at least nominally) that states contribute to the relief effort in order to obtain federal grant money. In addition, the federal grants were not sufficient to cover all the relief needs in a state, so significant additional revenue was needed. The likely impact of federal grants is thus positive, though a negative correlation is possible.

The last explanatory variable is the percent of the state legislature's lower house that is Democratic. This variable was selected because the lower house had the power to introduce revenue measures, and its political makeup likely influenced states' tax and revenue policies. As discussed previously with regard to the historical presidential voting record of the state, a higher proportion of Democratic politicians may have increased the likelihood of new taxes to fund relief measures, which would result in higher state revenues. The predicted effect of the democratic percent in lower house is therefore positive.

Table 1 summarizes the average magnitude and spread of each of these explanatory variables as well as the response variable, real per capita state revenue excluding federal grants, for the thirteen-state and 11-year data set considered in this analysis.

Variable	Mean	Standard Deviation
Real per capita state revenues (excluding federal grants)	66.51	32.21
Estimated real per capita state income	1160.26	339.49
Real per capita federal tax revenue	52.47	41.52
Mean democratic presidential vote percent 1896 to most recent election	41.66	7.75
Per capita auto registrations	0.21	0.04
Real per capita federal grants to states	17.38	68.22
Percent state legislature democrat, lower house	57.04	27.64

Table 1: Mean and standard deviation for response and explanatory variables

Regression Formulation & Results

Four different regressions are considered. These models cumulatively add explanatory and dummy variables. The first model regresses real per capita state revenue on estimated real per capita state income. In the following model, the remaining explanatory variables are added: real per capita federal tax revenue, the mean democratic vote percent in presidential elections from 1896 up to the most recent election, per capita automobile registrations, real per capita federal grants to states, and the percent of the state legislature's lower house that is democratic.[118] The third model adds in state and time fixed effect dummy variables, and the last model adds state time trend dummy variables. The models that include the dummy variables have Virginia as the left-out state.[119] For the present analysis, p-values with magnitude less than or equal to 0.1 are taken as statistically significant.

[118] Minnesota was missing data for the percent of the state legislature that was democratic for the entire time period considered in this regression. This missing data caused multicollinearity and dropped parameters in the regression model. To combat this issue, the state legislature was assumed to be 60% Democratic for all years. This value was selected because Minnesota was a nonpartisan state during the New Deal era but was generally considered to lean more Democrat than Republican.

[119] States other than Virginia and those that are associated with dummy variables in Table 2 are not part of the current regression. The state financial statistics (particularly the response variable, real per capita state revenue) have not yet been categorized for these other states.

The results of the regressions are shown in Table 2 on the following pages. The first row corresponding to each variable represents the coefficient and the second row contains the t-statistic.

In general, as more variables are added to the regression, the statistical significance of all the coefficients decreases. In the last regression, none of the coefficients are statistically significant even though the coefficient of determination (R^2) value is about 0.51, showing that the regression variables explain roughly half of the variation in real per capita state revenue. The problem may be that the sheer number of variables tends to diminish the contributions of each variable individually. This is supported by the much lower 0.22 value for the adjusted R^2 parameter. In addition, some explanatory variables in the regression likely partially overlap with the state fixed effects and state time trends, decreasing the size of the coefficients of both the variable and the fixed effect parameters.

Table 2: Regression results

Variable	Model 1	Model 2	Model 3	Model 4
Constant	37.994252	21.944018	-101.70154	-705.35102
	3.9	0.67	-0.34	-1.13
Estimated real per capita state income	0.02460188	0.0020376	0.02874926	0.00693222
	3.05	0.16	0.54	0.09
Real per capita federal tax revenue		0.14880993	0.04767951	0.0648389
		1.7	0.26	0.27
Mean democratic presidential vote percent 1896 to most recent election		-0.92653039	0.50583523	9.9051144
		-1.64	0.09	0.93
Per capita auto registrations		222.61445	446.26077	899.35947
		2.91	0.97	1.31
Real per capita federal grants to states		0.01108706	-0.00995966	-0.00414447
		0.3	-0.27	-0.1
Percent state legislature democrat, lower house		0.39423669	0.07753077	0.17592479
		2.48	0.33	0.53
State dummy CT			-21.94859	238.88132
			-0.15	0.91
State dummy NH			-4.5932687	139.18246
			-0.03	0.55
State dummy RI			-24.920998	225.70823
			-0.18	0.85
State dummy PA			14.04419	297.44797
			0.09	0.9
State dummy MI			2.5865348	304.9471
			0.02	0.88
State dummy OH			-19.828796	93.120908
			-0.16	0.4
State dummy MN			-16.659097	241.63034
			-0.1	0.66
State dummy NE			-12.637446	66.578689
			-0.1	0.25
State dummy OK			18.374037	198.0975
			0.26	0.96
State dummy CO			-29.581469	5.7851535
			-0.31	0.03
State dummy NM			32.371412	204.54924
			0.39	0.92
State dummy WA			-2.5850319	265.28381
			-0.02	0.74
Year dummy 1932			9.0370682	13.921189
			0.53	0.67
Year dummy 1933			16.418198	3.9050214

			0.94	0.15
Year dummy 1934			31.799708	20.242897
			2.03	0.88
Year dummy 1935			17.349803	5.6159699
			1.18	0.25
Year dummy 1936			12.077598	-0.2447038
			0.77	-0.01
Year dummy 1937			12.519193	-19.550299
			0.54	-0.54
Year dummy 1938			27.422376	-3.4826427
			1.13	-0.09
Year dummy 1939			23.102928	-3.4438598
			0.95	-0.09
Year dummy 1940			60.643881	30.647309
			1.67	0.6
Time trend dummy CT				-4.0798937
				-0.68
Time trend dummy NH				2.5118325
				0.45
Time trend dummy RI				-3.8723657
				-0.63
Time trend dummy PA				-2.196813
				-0.37
Time trend dummy MI				-5.0894455
				-0.71
Time trend dummy OH				2.1981949
				0.41
Time trend dummy MN				-3.195011
				-0.43
Time trend dummy NE				2.1184574
				0.25
Time trend dummy OK				-6.7646991
				-0.91
Time trend dummy CO				2.6013895
				0.47
Time trend dummy NM				-4.0643413
				-0.51
Time trend dummy WA				-4.594934
				-0.54

Estimated real per capita state income was expected to have a positive effect on real per capita state revenue. In the first regression model, the coefficient on estimated real per capita state income was 0.025, indicating that for each dollar rise in state income, the state revenue rises by two and a half cents. This is a relatively large impact, especially considering the low tax rates that predominated at the time. In this model, the coefficient is also statistically significant, with a p-value of 0.05. However, when the other regressors and dummies are added, the magnitude drops sharply and the statistical significance disappears. This could have been caused by overlap of state income with federal tax revenue and federal grants to states. In addition, the inclusion of state fixed effects, time fixed effects, and state time trends may have contributed to the decline in the coefficient's statistical significance.

The predicted direction of the effect of real per capita federal tax revenue on real per capita state revenue was uncertain. When real per capita federal tax revenue is first introduced in the second model, its coefficient is 0.149, with a p-value of 0.092. In this model, an additional dollar of per capita federal tax revenue is associated with a fifteen cent rise in state revenue. The positive coefficient supports the idea that states did not change their tax structure dramatically enough during the Great Depression to counteract the effect of falling income on state revenue. In the third and fourth models, the coefficient for federal tax revenue is smaller and is no longer statistically significant. The state, year, and time trend dummies added in these models are responsible for this change because they account for some of the variation in federal tax revenues measured across states and over time.

The mean democratic vote percent in presidential elections from 1896 up to the most recent election was expected to be positively correlated with state revenue. In the second regression model, however, its coefficient is negative and statistically significant at -0.927 with a p-value of 0.10. The value of the coefficient in the second model indicates that real per capita state revenue decreases by $0.93 for every percentage point increase in the mean democratic vote percent in presidential elections. The mechanism by which state revenue decreases could be linked to a more democratic voting history is unclear. When the fixed effects and time trends are added in the third and fourth regression models, the coefficient becomes positive and decreases in statistical significance. The inclusion of state fixed effects may reduce the size of this variable because it describes a political history that is specific to the state and which does not change appreciably with time.

The expected direction of the effect of per capita automobile registrations on state revenues was uncertain. The regression models produced large positive coefficients ranging from 223 to 899 for this variable, and this coefficient is statistically significant with a p-value of 0.004 for the second model. Like most other explanatory variables, the statistical significance disappears once the state and time fixed effects are added. In economic terms, the coefficient from the second model indicates that an increase of one auto registration per capita would be associated with an increase in per capita state revenue of $223. It is worth noting that this coefficient has the largest magnitude of all statistically significant ones in any of the four regressions, so per capita auto registrations appear to be important in predicting state revenues. The positive sign on the coefficient suggests that the particular state taxes levied on automobile ownership and maintenance outweighed any general income effect of the largely regressive tax systems that were in place during the 1930s.

Real per capita federal grants to states were expected to have a positive effect on state revenue. The coefficients from the regression model were very small but statistically insignificant. For example, the coefficient from the second model is 0.011 but the t-value is 0.3

and the p-value is 0.76. This result suggests that each dollar increase in real per capita federal grants was associated with an increase of just over a penny of real per capita state revenue. However, the statistical insignificance indicates that this variable is not important for predicting state revenue.

Finally, the percent of democratic representatives in the state legislature's lower house was expected to have a positive correlation with state revenue. In the second model, the coefficient is 0.394 with a t-value of 2.48 and a p-value of 0.015. This result means that a one percent increase in the democratic percentage of the lower house is associated with a 39.4 cent increase in real per capita state revenues. This is a fairly large increase. However, the coefficient on this variable becomes smaller and statistically insignificant when the fixed effects and time trends are added. These changes in the coefficient could be a result of overlap between the variable and the state fixed effects and time fixed effects. State fixed effects would account for any inherent liberalism or conservatism in a state, while time fixed effects would account for the increase in democratic politicians in all states.

V. Conclusion

Ohio's approach to weathering the Great Depression during the 1930s was largely to allow local governments, private charities, and the federal government to take on the burden of raising or providing funds for relief efforts. Even during the times the SRC was operational, the state also foisted most administrative duties, such as identifying people eligible for aid and disbursing that aid, onto county officials. This reliance on the local government and community was an entrenched political belief that proved essentially immutable even in the face of serious economic stress. Only once it was apparent that the recession was not to be short-lived did the governor and General Assembly begin mobilizing state resources to assist localities in raising revenues for relief expenditures. Even then, for a variety of political and ideological reasons, these state-level bond and tax efforts were generally too small in magnitude and too uncertain to relieve much suffering or provide significant economic stabilization. Had the federal government not stepped in with expansive New Deal programs to take over these roles, the Great Depression in Ohio would likely have been much more devastating for its residents.

A true understanding of Ohio's struggles during this time period requires state finance data as well as the political and social narrative. To this end, a comprehensive data set for all states has begun to be compiled. It must be noted that the current data set is complete for only a small sample of states and there is uncertainty associated with some of the data due to the incompatibility of state and federal accounting formats and the lack of a complete data set at the federal level. However, the data do appear to indicate that Midwestern states near Ohio faced similar challenges during the Great Depression and also relied heavily on the federal government for aid.

A preliminary attempt was also made to examine the effect of certain variables on real per capita state revenue using regression analysis. For this limited data set, the explanatory variables real per capita state income, real per capita federal tax revenue, per capita auto registrations, and percent of democratic representatives in the state legislature's lower house all have statistically significant coefficients in at least one of the four regression models examined. This indicates that there may be a meaningful correlation between these variables and real per capita state revenue. The mean democratic vote percent in presidential elections from 1896 up to the most recent election and real per capita federal grants to states did not have statistically significant coefficients. The addition of the state and time fixed effect dummy variables and the state time trend dummy variables generally caused the statistical significance of the coefficients of all variables to decrease. This is likely because many of the regressor variables measure phenomena that would largely be accounted for by the dummy variables.

These initial conclusions may not be valid once all states are accounted for in the data and regressions. In moving forward, more state revenue data need to be categorized so that it can be used to fill the 1932-1936 gap in the federal financial statistics. More care should be taken in choosing variables for the regression to avoid collinearity and to minimize the extent to which the dummy variables can account for the effect of the selected regressors on state revenue. Steps should also be taken to identify and remove endogeneity biases from the regression. Implementing these ideas will improve the accuracy of the coefficients and the relevance of the prediction model, allowing for the development of a better model for state finance during the Great Depression and a greater understanding of how states historically responded to dire economic conditions.

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