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ABSTRACT

During the presidential election of 1932 Franklin Roosevelt promised a New Deal for the American people. Our goal is to describe the changes wrought by the New Deal. To what extent did the New Deal expand existing programs? What new programs were created at all levels of government? How did the Federal government take over programs that had previously been the responsibility of state and local governments? We then survey the recent research that examines the impact of the programs. Finally, why did some programs persist and others fail?

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What Was New About the New Deal?

During the presidential election of 1932 Franklin Roosevelt promised a New Deal for the American people. By November 1932 unemployment rates had risen to more than 20 percent and annual production of final goods and services had fallen nearly 28 percent from the 1929 peak. The Hoover administration and Republican Congress had expanded federal outlays, added lending programs, and called for voluntarism to combat the economic decline. Roosevelt won the election in a landslide and the Democrats took over both Houses of Congress. Meanwhile, the economy slid further. In the First Hundred Days after Roosevelt took office in March 1933 the Democrats delivered a New Deal for the American economy. Over the next eight years the Roosevelt administration and Democratic Congresses continuously modified New Deal programs and regulations. Some were eliminated, others ran for the length of the Depression and then disappeared, and still others established permanent programs and precedents that remain in place today.

Scholars have sought in vain for an overarching unifying framework for the New Deal because the New Deal was not the implementation of an economic or political plan. The economics of the New Deal were not a Keynesian attempt to stimulate the economy. Keynes himself examined the fiscal structure in depth and argued that the spending increases were not examples of a Keynesian stimulus because taxes rose nearly as fast as spending; therefore, the deficits were nowhere near the size required to offset the economic decline. Federal budget outlays in real dollars rose 88 percent under Hoover between 1929 and 1932, faster than the growth in the first three years under Roosevelt (although starting from a lower base). Budget deficits under Hoover look more Keynesian than Roosevelt's deficits, although likely not by

Hoover's design.[1] Others argue that the New Deal was designed to raise prices to stimulate production and raising wages to help pay for the higher prices. The move off of the gold standard, the National Recovery Administration, the Agricultural Adjustment Administration, and the National Labor Relations Boards seemed to have this focus, but there were other areas of the New Deal that ran counter to these policies.

Roosevelt and the members of the New Deal coalition were pragmatists. Roosevelt certainly was not bothered by theoretical inconsistency. The focus was on solving specific problems and there were plenty of problems to solve with the depressed economy. Raymond Moley (1966, xviii), one of Roosevelt's original Brains Trust, wrote:

> "For the New Deal was not of one piece. Nor was it the product of a single integrated plan. It was…a loose collection of many ideas—some new, most borrowed from the past—with plenty of improvisations and compromises. Those of us who participated were too busy for mature reflection or to create a system or an overall pattern."

In this paper we hope to accomplish two goals. Raw experimentation does not offer a compelling or satisfying explanation for why the New Deal developed as it did, but any adequate explanation has to build from the reality that the early days of the New Deal were dominated by expediency and experiment. Experiment rarely proceeds *de novo* and one goal is to document which parts of the New Deal programs picked up ideas that were being proposed and considered within the Hoover administration, which had been discussed in the 1910s and 1920s, and which programs had a long tradition stretching back into the 19th century. The second goal is to

[1] See Keynes (1964 reprint), Brown (1956), Peppers (1973), and Fishback (2010).

understand why some programs persisted and other programs failed. In other words, we seek to provide the outline of an overarching explanation for the New Deal by looking at what lasted and what did not. This, admittedly, is not a very sophisticated approach, but it has the virtues of identifying the political constraints operating within the American political system and being a transparent explanatory technique.

Two distinctions are important to keep in mind. First, is the difference between fiscal and regulatory aspects of government programs. Some programs involved significant expenditures of funds, while others significantly affected the economy without involving large expenditures. Some programs did both. Second is the difference between national and federal programs. National programs were the distinct province of the national government which, in a historical irony, Americans still call the "federal" government. Federal programs were jointly funded and administered by national, state, and local governments. There was a marked tendency for regulatory programs to be national programs, while programs with significant fiscal impacts were either federal programs from the beginning or moved towards federal programs if they persisted. The one big exception was the Old Age and Survivors Insurance (OASI) program, which is the pension program commonly known as Social Security today. When Roosevelt and the New Dealers wanted to spend lots of money, they had to operate in conjunction with state and local governments.

The New Deal programs that built on existing national government programs included providing funds for highways and roads; reclamation and irrigation; flood control and improved navigation; benefits to veterans; building of post offices and federal buildings; mortgage loans and emergency crop and feed loans for farmers; education; agricultural experimentation, extension, and advanced education; and national defense spending. Some of the activities went

back to the 1790s. More funds were distributed in many of these programs under both Hoover and Roosevelt. However, Hoover tended to do it within existing programs, while Roosevelt often created new programs or reorganized old ones in ways that emphasized that a New Deal program was distributing a significant share of the funds. The federal government continued to regulate commercial banks and financial markets, but with a heavier hand than before. Some financial legislation gave new powers to the Treasury, which were sought as a means of undermining the monetary authority of the Federal Reserve System; as a result, the Fed lost power over monetary policy after 1933 and did not regain it until 1951 (Calomiris and Wheelock 1998).

The New Deal programs that built on the existing responsibilities of state and local governments were largest in the areas of relief of the unemployed and the poor. The New Deal created emergency programs in which the federal government provided grants to state and local government to provide relief payments with and without work relief obligations. Under the Social Security Act of 1935 permanent matching grant programs were established for three types of programs that many states had already established and administrative grants for state run unemployment insurance pools. To help the unemployed find work, the U.S. created a National Employment Service that complemented or replaced state employment services in a number of states. In housing the federal government built public housing projects, which a few cities had already done. As part of its emergency work relief and public works programs, the federal government also began providing loans and grants for state and local public projects, like schools, parks, airports, and streets, in which it generally had not invested before. The Tennessee Valley Authority originally started out building dams on the Tennessee River in line with the Army Corps of Engineers' emphasis on flood and navigation control but eventually

gained the authority to own and operate electric utilities, as some states and cities had done with gas and electric utilities. The federal government set up deposit insurance nationwide even though the states that had experimented with deposit insurance in the 1920s had generally abandoned their programs because they had been costly failures.

The truly *de novo* features of the New Deal came in several areas. The Agricultural Adjustment Administration began making rental and benefit payments to farmers to take land out of production after Hoover tried some minimal experimentation. The Commodity Credit Corporation created nonrecourse loans that put a floor on farm prices for some commodities. The National Recovery Administration created a framework for producers with some input from consumers and workers to set prices, quality, and wages in a large number of industries. The Home Owners' Loan Corporation bought over 1 million troubled mortgages and then modified the loans with new interest rates and repayment terms for the borrowers. The Farm Credit Administration began offering production loans and the Rural Electrification Administration offered loans to create cooperatives and build electricity lines in rural areas. The Social Security Administration provided administrative funds for state run unemployment insurance programs and created a national program for old-age pensions based on contributions from workers.

The first section lays out the overall picture of fiscal developments during the New Deal, including the relationships between the national, state, and local governments. The sections that follow describe specific programs in various areas of the New Deal. A lessons section and the conclusion draw together our views about what was new in the New Deal and why some of it survived.

I: The structure of New Deal federalism

The New Deal effected a political transformation of the structure of American government, changing its structure, function, and size. What stands out most prominently both in historical and contemporary debates over the New Deal is the growth of the national government, something Americans had steadfastly resisted for almost a century and a half. But fascination with the national government should not overshadow equally dramatic changes in the federal system of government. Fiscal and functional responsibilities were shuffled between national, state, and local governments in a way that set a new pattern for the structure of government that has persisted to the present. Part of what the New Deal did was truly new and parts built on precedents from earlier in the century or even from the Hoover administration. Understanding these patterns helps explain why Americans were willing to allow the national government to grow bigger.

Understanding how the New Deal patterns worked also provides an important lesson for the current economic and political crisis. After four years of attempting to deal with an unprecedented economic crisis through policies consistent with the existing framework of intergovernmental arrangements with some innovations by Hoover, the New Deal fundamentally altered those arrangements in a way that was both credible and durable. Europe, four years after the onset of a serious economic crisis, now faces a comparable political crisis involving precisely the same set of questions that faced the United States in 1933. How can the central government of a fiscal and monetary union expand its governance role to deal with the adverse consequences of an economic downturn without significantly, and perhaps unsustainably, reducing the sovereign independence of the member governments? While we neither suggest that the four year timing is determinative nor that the parallels between the United States in 1933 and Europe

in 2012 are exact, there are interesting lessons to learn from the way that the New Deal dealt with the structure of America's federal union.

What was new about the New Deal mattered, because old patterns of relations between national, state, and local governments were politically much easier to work with and expand than completely new patterns. It is useful to distinguish national programs, like defense, funded and administered solely by the national government, from federal programs, like social welfare, funded and administered jointly by some combination of national, state, and local governments. Federal programs had precedents going back before the federal highway program began in 1916. The New Deal programs with the largest fiscal impact in the 1930s were all federal programs, funded and administered by a combination of national and state governments.[2] National programs, in contrast, tended to be regulatory programs with significant impacts on the economy and society, banking and financial reform for example, but much smaller fiscal impact on the national budget. This also followed an earlier pattern in which the national government developed responsibilities for important regulatory functions – railroads, anti-trust, national banks, and food quality – that did not have large fiscal burdens.

The New Deal's impact on fiscal federalism in the U.S. can be summarized by three important trends seen in Table 1. First, while total government grew during the New Deal, it did not grow faster relative to GDP in the 1930s than it had grown earlier in the 20th century. The ratio of total government spending at all levels to GDP nearly doubled between 1902 and 1927,

[2]Old Age and Survivors Insurance appears to be an exception because it was a purely national program, but pensions were not distributed until 1940. Further, the large fiscal implications of OASI, which originally was to be funded largely by specific taxes, were not really foreseen until the late 1930s.

and nearly doubled again between 1927 and 1940.[3] The public sector continued to grow in the 1930s, but not at an accelerating rate.

[Table 1 placed here.]

Second, the sharp increases in the national and state shares of government expenditure seen in Table 1 were new in the 1930s. Accepting that 1922, 1942, 1948, and 1952 are exceptional war or postwar years, the national share of public expenditure prior to 1934 was below 35 percent, while after 1952 it had risen to above 53 percent. The local share, which had been above 50 before the 1930s, fell to 30 percent or less, while the state share rose from less than 10 percent in 1913 to 16 percent in 1932 and to above 17 percent after 1967.

National expenditures on cooperatively administered programs accounted for more than the total increase in the Roosevelt administrations expenditures over the level of expenditures in the last year of the Hoover administration. These expenditures largely went to states, who passed some of the money on to local governments and spent the rest directly themselves. Although the national government increased its share of total government activity during the New Deal, by no measure was the state share of government activity reduced. The state government share of total government revenues from own sources rose from 16.4 percent in 1927, to 21.7 percent in 1934, to 28.2 percent in 1940. The state share of total government expenditures rose from 13 percent in 1927, to 16.8 percent in 1934, and to 17.5 percent in 1940 (the own expenditure shares are even higher).[4] All of the growth in the national shares came at

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[3]We use 1927 because data for 1922 include relatively large interest expenditures incurred from the World War I debt that raised the national share that year. Even so, if we take the period from 1913 to 1922 and compare it to the period from 1922 to 1940, we get roughly the same effect.

[4] The reporting of intergovernmental grants differs in government reports of expenditures and revenues to avoid double counting the money. When the national government makes a grant to the local government, which then spends the money, the spending is reflected in the local government's spending but not in the national

the expense of local governments. The reason for this is clear. National grants were given primarily to the states. Most of these grants offered incentives for state government to increase their own spending. Whether these incentives were explicit, like the strict matching provisions in the Social Security Act categorical relief programs, or implicit as in Harry Hopkins' use of relief grants, they were real. Wallis (1984) found that, in the late 1930s, every dollar of national grants increased state expenditures from own revenues by $0.31. At the same time combined state and national grants actually reduced local government expenditures.

Where did these state revenues come from? In 1930, 16 states had individual income taxes, 17 had corporate income taxes, and none had a general sales tax. During the 1930s, 16 states added personal income taxes, 15 added corporate income taxes, and 24 created a sales tax. It is impossible to say whether these taxes were the result of New Deal grant programs, since the majority of new state taxes were put in place in 1933 at the same time that the New Deal grant programs were just getting under way. But one of the legacies of the New Deal was a much stronger state government sector with new and more flexible tax instruments.

Another way to see this is in the structure of state government programs. In 1932, before New Deal relief programs started up, only 7 states had spent money for unemployment relief and had state relief agencies. By the end of 1933 all 48 states did. By 1939 all the states had approved unemployment insurance schemes, and almost all had approved OAA, ADC, and Aid to the Blind programs in place. State highway boards were the result of the 1916 grants, but they too were still in place and would expand dramatically with the onset of the interstate highway

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government's expenditures. On the revenue side, the grant money is assigned to the level of government that collects the taxes; therefore, when the national government provides a grant to a local government, the national government revenues reflect the size of the grant, while the grant is not included in revenues for the local government. Thus, when the New Deal provided more intergovernmental grants, the national share of expenditures shown in Table 1 is smaller than the national share of revenues, while the local governments' share of expenditures were larger than their share of revenues.

program in 1956. There is, then, no doubt that the programs with the largest fiscal impact were federal programs. Over time, the old age insurance part of Social Security would become an extremely important fiscal program, but that was in the future in 1939.

Finally, the New Deal led to a dramatic expansion in the use of intergovernmental grants that became a fundamental feature of the fiscal structure of the country. Between 1902 and 1932 state and local governments' reliance on grants from the national government was minuscule, as the ratio of national grants to state and local revenues was between 0.01 and 0.03 in column 5 of Table 1. States and their local governments provided their own funding for the bulk of public services including public education, police protection, roads and sanitation, public welfare, and health and hospitals. Between 1932 and 1934 the shift to New Deal financing of relief spending sharply raised the ratio from 0.03 to 0.10. After World War II, national grants to lower level governments became an even stronger feature of the long run federal fiscal system, as the ratio has been 0.10 or above since 1962.

The New Deal programs with the largest effect on state and local governments, as well as the economy, were the relief programs. This was not only the result of the large amount of funds expended for relief, but also because work relief programs like the WPA made a significant contribution to a number of state and local functions through construction activity on schools, highways, parks, streets, sanitation, and natural resources. Understanding the relief programs is central to understanding intergovernmental relations during the 1930s. These programs had both major economic and psychological impacts. In fiscal 1934, the national government made over $2 billion in grants to state and local governments for relief, which in turn made more than $2

billion in relief grants to needy individuals and families. In 1933, $2 billion was 4 percent of GNP.[5]

II. Relief and Poverty Programs

During the 1930s the federal government's relief efforts were new in two ways: the federal government for the first time actively distributed relief funds to people outside the military, and the work relief programs built many public works projects--schools, sanitation facilities, local roads—that would be run by state and local governments. Federal relief built on local relief activity that had been in place since colonial times and the state programs that had developed during the Progressive Era. County, city, and town governments had provided for a mix of almshouses, poor farms, and "outdoor" relief during the colonial period following the English structure. The practice evolved and continued into the 1930s. During the late 19th century there were periods when private nonprofit groups like the Charitable Organizations Societies took over the operation of relief in some cities, and charitable donations expanded. The organizations later stepped out of operations and collected data on the provision of relief and the shares of private and public spending on relief shifted back and forth for the next few decades. In the peak year of 1929 estimates from the state of Massachusetts suggest that public relief spending was roughly 1 percent of Massachusetts state income and private relief spending approximately 2 percent of income (Livingston, 2011).

[5] Cross-country comparisons can be dicey, but Amenta (1998, 5) suggests that by 1938 the U.S. governments were spending about 6.5 percent of GDP on social welfare, a percentage substantially higher than in other major western countries. See Lindert (2004) to put these figures in long run historical perspective.

Between 1929 and 1932 per capita spending on relief by state and local governments and private charities more than quadrupled in 114 cities, as the Depression drove increasing numbers of people onto relief. In 1932 the Hoover administration authorized $300 million in loans from the Reconstruction Finance Corporation (RFC) to cities around the country to help finance relief spending. Governors who to applied for relief loans had to demonstrate that hey had exhausted all means of raising revenue and propose worthy relief projects that would not otherwise be undertaken. The RFC loans were a bold move historically because the U.S. federal system had long treated relief and labor issues as exclusively state and local issues. Originally, these loans were meant to be repaid at three percent interest through reductions in future highway apportionments, but the RFC was allowed to write them off in 1938.[6] The RFC loans led several states to establish new relief administrations to organize relief at the state level.

With unemployment rates continued at 25 percent, the Roosevelt administration argued that America faced a national peacetime emergency and established the Federal Emergency Relief Administration (FERA) during the First Hundred Days. The FERA distributed federal money to the states, which in turn, distributed the funds to local officials, who administered payments to households "in need." The FERA program offered either "direct relief" which was straight cash payments, or "work relief," which required a family member to work for the funds. The relief payment to a household was determined using a "budgetary deficiency" principle. FERA relief workers and field agents measured the deficit between the family's actual income and a hypothetical minimum budget for a given family size. Actual relief benefits often did not fully cover the family's deficit because relief officials, faced with large case loads and limited funds, reduced benefits per household in order to provide relief for more families. The payments

[6] For discussion of the RFC relief loans see Jones (1951, 178) and Fearon (2007, 39-49).

for FERA work relief jobs were designed to be income maintenance payments; therefore, the FERA hourly "earnings" were roughly half of the level paid for jobs on Public Roads Administration (PRA) and Public Works Administration (PWA) projects.

To provide work relief for young people entering the workforce, the Civilian Conservation Corps (CCCR) provided work relief for young men and some young women between the ages of 16 and 24 from families eligible for relief. Most worked on natural resource conservation projects while living in camps run in a semi-military fashion by veterans. The pay was $1 per day, most of which was sent home to the workers' family. The CCCR had some problems with dropouts who did not like the semi-military organization but a large share of the alumni of the camps considered them to be a life-changing experience that helped them develop the skills and attitudes necessary to become successful (Maher 2008).

In November 1933 in the face of an expected onset of a rough winter with continuing high unemployment, the national government created the Civil Works Administration (CWA) to put people to work on public jobs immediately. By mid-December the CWA employed 3.6 million people. The CWA hourly earnings matched public works earning but limited the number of hours per week that could be worked. About half of all CWA recipients were from existing relief programs, and after the CWA closed in March 1934, most of the workers were transferred back to FERA work relief programs. Between July 1933 and July 1934, Table 2 shows that the FERA and the CWA distributed roughly $23.37 per person in 1930 dollars, or about 3.5 percent of the 1929 peak in GDP per capita of $820 in 1930 dollars.

Table 2 placed here.

In 1935 the Roosevelt administration and Congress negotiated a redesigned relief program that included an emergency relief component as well as a permanent national role in the welfare system. The Roosevelt administration gained much tighter control of the operation of emergency work relief by replacing the FERA with the Works Progress Administration (WPA). State and local officials proposed projects and continued to identify who was eligible for relief based on household budget deficits. Then the federal WPA hired people from the certification rolls and paid them hourly earnings for a restricted number of hours per month. As with the FERA, the payments were for income maintenance and hourly earnings were roughly half those on PWA and PRA projects. To combat fears that private jobs would end quickly, the WPA assured people in many areas that they would be accepted back on work relief if they lost their private job. Even so, a significant percentage of workers stayed on work relief jobs for periods as long as a year and in some cases several years (Howard 1941; Margo, 1991, 1993). The FERA and WPA were temporary "emergency" programs that would end. Even though some members of the administration wished to make them a permanent feature of the economy, the WPA was phased out by the end of 1942.[7] Between fiscal years 1936 and 1939, the WPA spending in Table 2 averaged $16.52 per capita, roughly 2 percent of 1929 per capita GDP.

The permanent components of the 1935 reforms were the most important. Care of the "unemployable" poor was returned to local governments and termed "general relief." The Social Security Act created five big programs, four of them were federal programs administered and

[7]Howard (1943) describes WPA operation. For a good description of relief activity within a state, see Fearon (2007) for the state of Kansas. A large number of statistical studies analyze the political economy of the distribution of the New Deal relief funds, including most recently Fleck (1999a, 1999b, 2001a, 2008), Wallis (1987, 1991, 1998, and 2001) and Fishback, Kantor, and Wallis (2003), which summarizes results for a large number of studies of all New Deal programs. See also Wright (1974).

funded jointly by the national and state governments and one funded and administered solely by the national government.

The Act created three categories of needs-based public assistance that had been established in several states prior to 1935. The "categorical" relief programs – Aid to the Blind, Old Age Assistance, and Aid to Dependent Children – were financed through closed end matching grants. States determined how much they would spend per case based on the budget deficiency principal, and the national government matched state spending up to a maximum amount per case. Matching grants were available to all states that passed enabling legislation that met certain administrative requirements. The state set the benefit levels and ran the program. The matching grants generally increased the amount of aid available in the categories in states that already had programs and led states without programs to add them. Aid to Dependent Children (ADC) essentially took over from mothers' pension programs that provided payments to widows with children and were present in 40 of 48 states in 1920 and 46 of 48 states by 1931. Old Age Assistance (OAA) replaced means-tested old-age programs that were present in 10 of 48 states by 1929 and 28 of 48 states in 1934. OAA and the earlier state elderly programs were truly means tested. Many states took liens on or ownership of the homes owned by recipients and then collected the amounts paid out in benefits when the person died before the heirs could receive their share of the home. Aid to the Blind replaced similar programs in 28 of 48 states as of August 1935 (Fishback and Thomasson, 2006). Within 3 years most states had adopted the enabling legislation. The Old Age Assistance programs distributed about 80 percent of the funds under the three public assistance programs, as a large number of elderly were transferred off of the general relief rolls and new elderly enrolled. In 1939 the states paid out about 0.65 percent of 1929 GDP in public assistance benefits. Federal government grants for

this purpose in Table 2 averaged about $1.91 per capita in benefit payments and $1.44 in administrative payments.[8]

Another permanent element of the Social Security Act was national support for unemployment insurance. The national government collected a 3 percent payroll tax from all workers in covered employment. Ninety percent of the payroll taxes were paid into a separate reserve fund for each state. States could draw on their funds to pay benefits to unemployed workers. Prior to 1935, Wisconsin was the only state with an unemployment insurance program, but it was still building up a reserve fund and had not yet started paying benefits. In order to participate in the program, states had to pass the enabling legislation and then build their reserve fund for two years. By the end of 1938, 30 of 48 states were paying benefits totaling 0.36 percent of 1929 peak GDP. The U.S. unemployment insurance programs differ from programs in nearly all other countries in that they incorporate experience rating, which requires employers to make larger payments when their share of laid off workers is higher.[9]

The final component of the Social Security Act was a purely national program, Old Age and Survivors Insurance (OASI). There was a loose precedent for the federal government's involvement in old-age retirement pensions. The Civil War disability pension had expanded its eligibility requirements so broadly that the infirmities of old age were largely covered, so that a substantial share of the elderly in the North in the early 1900s were receiving federal military pensions. In the late 1930s the OASI program called for employers and workers to each pay

[8]Information on the public assistance programs is based on the payouts in the months of January, February of March from Social Security Board. *Social Security Bulletin* (May 1939): 51. These were compared to an estimate of GDP in 1929 dollars in 1929 of 103.7 billion (series Ca10 from Carter, et. al.) and then adjusted for inflation by the Consumer Price Index (1967=100) (series E-135, p. 210-11, U.S. Census Bureau, 1975).

[9]This discussion is based on work by Baicker, Goldin, and Katz (1998).

taxes of 1 percent on the worker's income up to a specified maximum each year. At retirement age the person then received monthly pension payments. Over the past seventy years monthly pension payments have averaged about 40 percent of the typical monthly earnings of workers at the time the pension was being paid. There were extensive debates over whether the system should run like an actuarially sound pension program or insure a basic level of benefits. The original act split the difference but by 1940 it became a pay-as-you-go program. The long term impact of social security has been enormous but its effects in the 1930s were limited to the impact of the new tax payments, which accounted for 5.6 percent of internal federal tax revenue in fiscal year 1937. Benefits were not paid until 1940 (Commissioner of Internal Revenue 1937, 75).

The final area of relief was veterans' benefits for disability relief and pensions, which had been the national government's responsibility since the nation's founding. Essentially, these were employment benefits for veterans who had worked in national defense. As seen in Table 2, annual payments for relief to state soldier and sailors homes and veterans' administration payments in the 1930s had fallen from their peaks during the Hoover administration. The decline occurred in part because of drops in rehabilitation and retraining programs for veterans who had fought in World War I.

The major exception came in the form of the Veterans' Bonus of 1936. In 1924 Congress provided for adjusted-service certificates for World War I veterans that could be redeemed at face value twenty years after receipt. The amount to be paid was $1 for each day served in World War I inside the U.S. and $1.25 for each day overseas, and then the amount was multiplied by 1.25 to take into account the delay in payment. By the late 1920s living veterans could borrow from the Veterans' Bureau against the certificates by accepting a lien on the value

of the certificate. They could pay back the loan and receive the full certificate value upon maturity of the certificate in the 1940s or accept the amount left after interest was deducted. After Congress lowered the maximum interest on the loans to 4.5 percent (and soon after to 3.5) and increased the amount that could be borrowed to half of the value of the adjusted service certificate on February 27, 1931, World War I veterans took out 2 million loans valued at $795 million within the next few months. Demanding that the full value of the certificates be paid without delay, groups of veterans marched on Washington in the summer of 1931 and again in the summer of 1932 when they set up camp near the Potomac. The bloodshed that occurred when the army tried to clear the camp harmed President Hoover's re-election bid. Yet, Hoover and the Republic Congress refused to redeem the certificates early on the grounds that it would lead to higher taxes.

Veterans continued to lobby for early payment on the certificates and Congress passed the Veterans' Bonus Bill over President Roosevelt's veto in January 1936. The Veterans Administration received 3.3 million applications seeking cash settlements of $3.2 billion for settlement by June 30, 1936. The VA payout per person in the U.S.in Table 2 was $33.84 with $16.14 going to pay off the veterans' loans, and the remaining $17.70 in cash.[10]

A number of recent studies have addressed the impact of federal relief spending at the state and local level while controlling for a wide range of correlates, long-term features of each location, nation-wide shocks that vary by year, and endogeneity bias. Relief spending had a

[10]See Administrator of Veterans' Affairs (1931, pp. 10, 42-44; 1936, pp. 1, 22-24). When the certificates were first issued if the amount came to less than $50, they were paid in cash immediately, and the cash value of the certificate was paid out to heirs at the time of the veterans' death. Under the Bonus Bill of 1936 If veterans held the certificates for more than one year they could receive the face value plus 3 percent interest per year until maturity on June 15, 1945. The three percent interest rate was higher than the 2.5 returns on long term government bonds during that period.

number of salutary effects on measures of socio-economic welfare. An injection of about $2 million in relief spending was associated with a reduction of one infant death, one suicide, 2.4 deaths from infectious disease, and one death from diarrhea, while contributing to a rise in birth rates that returned to the long term trend. A ten percent increase in work relief spending was associated with a 1.5 percent reduction in property crime, although this is smaller than the 10 percent reduction in crime associated with a 10 percent rise in private employment. The expansion of benefits under the old age assistance program allowed a larger share of elderly women to live on their own, while accounting for about half of the decline in the elderly workforce between 1930 and 1950, although it had no effect on reducing elderly mortality rates. Relief jobs and spending appear to have had little or no positive impact on private employment and in some settings appears to have crowded out some private employment even when unemployment rates remained above 14 percent. Such crowding out also appears to have extended to private charitable spending. An additional dollar of New Deal spending reduced church charitable spending by about 29 percent of the maximum it might have reduced it.[11]

III. National Versus State and Local Discretion Over Relief Spending

Granting 2 to 4 percent of GDP in relief funds each year during the New Deal was an unprecedented act of national government largesse, particularly because the grants created the possibility of unprecedented political patronage for the politicians in control of the money. How the political system evolved to both allocate and control the administration of relief funds was a central element of the New Deal. Before the New Deal relief was funded and administered

[11] For the effects on birth and death rates see Fishback, Haines, and Kantor (2007), the effects of old-age assistance are measured in Balaan Cohen (2009), Costa (1999), Friedberg (1999), Parsons (1991), and Stoian and Fishback (2010). The crime effects are measured in Johnson, Fishback, and Kantor (2010). The impact on private employment is measured in Fleck (1999b), Wallis and Benjamin (1981), Neumann, Fishback, and Kantor (2010), and Benjamin and Mathews (1992). The charitable crowding out is from Hungerman and Gruber (2008).

largely by local governments with some aid from state governments. The original FERA legislation made it clear that FERA was to restrict itself to making grants to state governments. Half of the original $500 million appropriation was to be allocated at the discretion of the national relief administrator on the basis of need and half on a matching grant basis. By November of 1933 FERA head Harry Hopkins had convinced Congress to drop the matching feature. [12] FERA promulgated an extensive set of regulations covering how the states were to administer relief programs and all FERA grants were conditional on states meeting the regulations. Hopkins was able to enforce several simple and important regulations; for example, all relief funds had to be spent through public agencies. But FERA's ability to affect personnel policies and recipient selection criteria was limited. The agency's power was much greater in states where it played a larger fiscal role. As Williams (1939) noted, "the ability to enforce these policies was much greater in states where the national contribution was larger."[13] In extreme cases, the FERA legislation gave Hopkins the authority to "federalize" relief and take over the administration of relief in a state. Hopkins federalized relief on seven occasions. [14] State governors were glad to get the national grants but were not happy to have Hopkins announce that grants would be reduced if the state government did not come up with a larger relief appropriation. State officials expressed their displeasure actively. Governor Davey of Ohio went to the extreme of swearing out an arrest warrant for Hopkins after he had charged Davey with using relief for political purposes.

[12]See Williams (1939, 181-190, 203-221). In the final analysis, it is clear that the original matching program was relatively unimportant. Williams shows (Table 6, p. 217) that the federal government's share of relief spending varied dramatically across states from a low of 39 percent in Rhode Island to a high of 98 percent in South Carolina.

[13]Quote is from Williams (1939). For a discussion of the rules and regulations, and their enforceability, see Williams (1939) and Wallis (1981).

[14] The logic of how Hopkins could use discretionary grants to pry more funds out of state governments is developed in Wallis (1988).

The control Roosevelt and Hopkins had over the distribution of relief grants to the states strongly influenced the negotiations over which level of government would have discretion and control when the relief programs were restructured for the long run in 1935. The compromise that emerged from the negotiations included the replacement of the FERA with the WPA to continue emergency relief and the long run programs established by the Social Security Act of 1935. Aware that the FERA was an emergency program designed to end after the emergency was over, Roosevelt and Hopkins established the Committee on Economic Security to work on a more permanent solution to the relief problem. In his state of the union address in January of 1935, Roosevelt announced that the national government "must and will quit this business of relief" and sent the Committee Report and proposed legislation to Congress. The proposal called for OAA, ADC, AB, and UI to be administered by a FERA-like agency in which the national relief administrator used discretion rather than matching grants to distribute fund.

The national relief administrator's discretionary control did not even make it through the first committee hearings in the House. In the Social Security bill that emerged from Congress, strong state control over OAA, ADC, AB, and UI was accomplished by tying the national government's fiscal hands through strict matching grant provisions. National grants were open ended, but grants per relief case were capped. The independent Social Security Board created by the Act had to approve each state's categorical program, but there were strict limits on the Board's ability to interfere with the actual administration of the programs. For example, the Board was explicitly forbidden from withholding grants because of personnel decisions at the state level. Given that general relief for the needy who did not fit these categories was left completely to state and local governments, control of the welfare system became as much a matter of state policy as of national policy. This return to more state control was instituted

despite the protests of social welfare professionals who feared that returning control of relief to the states was just returning to the old system of political patronage and cronyism.[15]

In the negotiations over relief the national government retained control over two programs, the Old Age Survivors' Insurance pensions and the WPA emergency work relief agency that replaced the FERA. These programs also contained important limits. The national government had very limited discretionary power over the OASI program because individuals paid payroll taxes into the system and their benefits were fixed by formula. No matter where people lived during their working life or during retirement, their contributions and benefits were set by formula with no discretion on the part of the national government.

The one large relief program where the national government still had a great deal of discretionary control was the WPA, which replaced the FERA as the emergency work relief program. Hopkins did not have to work through the states to distribute funds and the national government paid WPA workers directly on the projects. The state and local governments had some role in proposing projects, identifying the eligibility of the relief workers, and in providing some funding. But there was no explicit matching formula and the amounts contributed by states varied widely (Howard 1943, 734-735). It is clear from the Congressional debates, however, that Congressmen were willing to give the national government such discretionary power only because the WPA was an emergency agency that was expected to close down (Wallis 1981 dissertation and Wallis, Fishback, and Kantor 2006). In contrast, the permanent relief programs created by the Social Security actally limited the national government's discretion.

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[15] This story is told in a number of places. Brock (1988) and Bremer (1984) are very good on the details. The notion that returning relief to the states was an attempt to return control of the relief programs to local economic elites is elaborated in Piven and Cloward (1971) and Block, et. al. (1987). For a reformulation of this hypothesis based on the interest of southern legislators, see Alston and Ferrie (1985).

Understanding why the Social Security system was structured this way is critical to understanding the New Deal's legacy and position in the political and economic history of the century. With the addition of Medicaid and Medicare in 1967, the Social Security system remains in place in an expanded form today. In 1992, outlays for social insurance, unemployment insurance, and public assistance were one quarter of total government outlays at all levels. Medicaid was set up as a categorical assistance program, with matching grants and state administration. Medicare was set up like old age insurance, with national administration and standards, but has gradually become a more federal program as well.

The New Deal relief programs initiated a pattern of cooperative intergovernmental activity with a distinctive bent: fiscal centralization and administrative decentralization. They continued the long running administrative decentralization of relief policies from colonial times but added national government funding. Not only were New Deal programs administered at the state level, but state governments possessed real decision-making power. The states' decision making power in the long run increased closer to the pre-New Deal levels with the passage of the Social Security Act. The use of allocation formulas and matching provisions effectively eliminated the possibility that the national government would be able to use the discretionary allocation of funds across states to influence the administration of the OAA, AB, ADC, and UI programs at the state level. Limitations on national administrative discretion were a necessary part of making the relief system politically sustainable over the long haul. The New Deal experience gives us strong confirmation of this conclusion. The crisis character of the early New Deal programs resulted in the national government being granted extensive discretionary power. But that power was closely watched and eventually drastically curtailed. Further, this was not

the outcome desired by social welfare advocates who were the most vocal and well organized promoters of an expanded welfare system. They clearly wanted a more centralized program.

The pattern of centralized finance and decentralized administration persists today. It is a central element in the interstate highway system, the structure of Medicare, the essential elements of welfare reform in the 1990s which gave states greater control over relief administration, and in the recent health care reforms embodied in the Affordable Care Act. The pattern of centralized finance and decentralized administration, particularly under a regime in which the discretionary control of the centralized government is strictly limited, affords one of the most important lessons for the current economic and political crises. The United States was unable to move very far away from the pattern. The Affordable Care act is markedly "federal." The outcry over national government bailouts of private businesses, which involved a large amount of discretion on the part of national actors, far exceeds the outcry about the short run stimulus money that was transferred to the states. Opposition remains to deficit spending, not the allocation of spending to state and local governments. As the European crisis extends and deepens, however, it appears from some distance to involve precisely the opposite pattern. The EU is seeking to impose more inflexible fiscal and administrative rules on the member states while maintaining flexibility and discretion at the center. At least this is how negotiations over the recurring fiscal crises seem to be proceeding.

Harry Hopkins was a gifted administrator. Winston Churchill dubbed him "Lord Root of the Matter" for his ability in negotiating and facilitating alliance arrangements during World War II. Undoubtedly he could have devised and administered a national welfare system that would have provided more assistance to the poor, unemployed, and needy at a lower fiscal cost than the system that emerged from the Social Security Act. But in a fiscal and political union such as the

United States, locating excessive discretionary control at the center is politically unsustainable, no matter what its policy effectiveness. This is a lesson of great importance for current crisis.

IV. Public Works

Public works grants differed from relief grants in the operation and administration of the projects. About two thirds of the funds distributed went to the types of projects that had long been run by the national government. The projects hired workers at full market wages, often through contractors who ran the projects. Administrators were not required to hire people eligible for relief, although it was encouraged. Under the Hoover Presidency the annual distribution of funds to state highways under the U.S. Department of Agriculture (USDA) rose 167 percent, rivers and harbors funds under the Army Corps of Engineers rose 152 percent, and loans to the Reclamation Bureau for dams and irrigation projects rose 71 percent. The reports at the time show that the increases were meant to be forms of stimulus.

The amounts distributed rose sharply again under the Roosevelt administration. But there was a difference in style. Where Hoover usually increased spending within existing programs, Roosevelt had a flair for publicizing New Deal programs that were renamed, reorganized, or new. The Public Roads Administration (PRA) took over the USDA highway program. The Public Works Administration (PWA) and the work relief projects provided grants for many river and harbor projects that were built under the direction of the Army Corps of Engineers. The Public Building Administration (PBA) took over the building of national buildings around the country. By the end of the 1930s, the PWA, PRA, PBA, U.S. Housing Authority (USHA), and the WPA relief program had been rolled into the Federal Works Agency (FWA). In 1942 the

PWA and WPA emergency programs were terminated and the PBA, USHA, and PRA duties were distributed to new agencies.[16]

There were three new features of the public works grants. The first was explicit grant and loan funding of state and local projects under the non-federal program. The PWA was relatively slow to get started because its leader Harold Ickes wanted to focus on projects of high quality, but Table 2 shows that it distributed an annual per capita average of $1.04 for federal projects and $1.66 in grants and $0.83 in loans for the nonfederal programs. Second, during its first three years the PWA spent an annual average of $0.41 per capita on a series of local public housing projects. In 1937, the U.S. Housing Authority began providing loans for public housing projects. The third was the creation of the Tennessee Valley Authority (TVA). In most ways the TVA was not new. It was a corporation set in motion to build dams along the Tennessee River, but these dams had been designed by the Army Corps of Engineers for flood control and to improve navigation of the rivers, and the Corps likely would have built the dams relatively soon. The dams also produced hydro-electric power, and electric power became the primary emphasis of the TVA after 1935. The TVA became a new feature of federal activity when it began buying up distribution lines and electric utilities, including many generating electricity with coal, and became the primary producer and distributor of electricity in the mid-South region. Some states and local governments had taken control of gas and electric utilities in the Progressive Era, but this was the first time the national government had stepped into the process.

In the Roosevelt administration's view the public works and work relief programs were not revolutionary. They were explicitly designed not to go beyond public sector functions. The

[16]See Clarke (1996, pp. 62-68) and Schlesinger (1958, pp. 263-96).

projects were traditional government projects, building and maintaining public buildings, schools, parks, roads, sanitation facilities, dams, airports, and a variety of other public projects. Production of manufactured goods, creations of stores, and other private sector activities were off limits. The simultaneous goals were to put people back to work and build social overhead capital with hopes of stimulating the economy.

As with relief programs, studies have examined the impact of combined spending on public works and relief on various aspects of the economy at the local level using similar sets of controls. The studies have generally combined public works and relief grants because they have found it difficult to find effective instrumental variables that can be used to identify the separate effects of the two programs. The studies suggest that an additional dollar per capita of public works and relief spending during the period 1933 to 1939 in a county was associated with a rise in retail sales per capita of about 43 cents, which might have translated into a rise in per capita income of about 80 cents. A study of a panel of state information from 1930 through 1940 suggests that a dollar increase in per capita public works and relief grants increased per capita income in the state by amounts ranging from $0.9 to $1.7, although none of the effects is statistically significantly different from one. This rise in income did not translate into increases in private employment in the states, as the coefficients on public works and relief grants were all negative. Higher public works and relief grants in a county served to stimulate in-migration into that county, even though there were a number of residency requirements that limited access to relief. One simulation suggests that the amount of internal migration in the U.S. would have been lower by 15 percent had the public works and relief grants not been distributed. In-migration to cities, in turn, led to reductions in the number of weeks worked by the typical worker, greater difficulty in getting access to relief jobs, and out-migration by some workers.

Even though the TVA is credited with lowering the costs of electricity in the area, private firms had long been expanding electrification as well. A careful study of electric rates shows that the monthly bills for most TVA customers were the same as the bills for private utility customers. Only larger manufacturing operations received lower bills. Estimates of the TVA's impact suggest only small positive impacts on farm electrification and retail sales per capita. There may have been stronger effects on manufacturing activity.[17]

V. Farm Programs

Farmers faced a dire situation in the early 1930s. The farm sector experienced a "Golden Era" of farm prices in the early 1900s, followed by an expansion in demand during World War I. When Europe began producing again in the early 1920s, demand for American farm products declined, and the farm sector went through a difficult shakeout in the early 1920s. By the time the Depression hit, the farm sector had been in the doldrums for roughly a decade. The New Deal worked to aid farmers by continuing and expanding the national government's role in farm lending and by seeking to raise farm prices by paying farmers to take land out of production and providing nonrecourse loans that put a floor on farm prices.

Well before 1933 the national government had been heavily involved in providing networks of farm credit. Just before entering World War I, the national government passed legislation to fund farm mortgages through a Federal Land Bank program. The national government organized and provided starting capital to twelve Federal Land Banks. They were

[17]The impact of public works and relief grants on retail sales and migration is estimated in Fishback, Horrace, and Kantor (2005 and 2006). The state level measures of the impact on per capita income and private employment are found in Fishback and Kachanovskaya (2011). The migration simulations are from Sorensen, Fishback, Kantor, and Allen (2009). The effects of internal migration are from Boustan, Fishback, and Kantor (2011). The effects of the TVA on farm electrification, retail sales and manufacturing are estimated by Kitchens (2011); for a study of manufacturing productivity see Kline and Moretti (2011).

authorized to extend loans with 5 to 40 year lengths through national farm loan association cooperative corporations organized by farmers. The membership of the cooperatives was made up exclusively of borrowers from the Federal land banks. Each bank was liable for its own bond issues and the bond issues of the 11 other Federal land banks. As of 1930, the Federal Land Banks held about 12 percent of the farm mortgage indebtedness in the U.S. The government also helped organized a series of privately owned joint stock land banks that could make direct mortgage loans to farmers, while also providing capital to start intermediate credit banks to provide short run capital to farm lenders and cooperatives that faced short term liquidity constraints.[18]

By the early 1930s a sizeable share of farmers had fallen behind on loan payments and become delinquent. In January 1932, the national government injected an additional $125 million into the federal land banks to expand credit availability. Even so, the real annual value of Federal Land bank loans declined from the 1920s into the early 1930s, as seen in Table 2. Meanwhile, loans from joint stock land banks declined to a trickle. In 1933, the Farm Credit Administration took over the administration of the federal land banks and the federal intermediate farm credit banks, and also gained authority to make direct loans to farmers, while the joint stock land banks were closed. The amount of annual mortgage lending to farmers thereafter more than quadrupled the amounts loaned in the early 1930s. Consequently, the national government was involved in more than half of farm mortgages by the mid-1930s.[19]

During the 1920s, Congress passed a series of acts to fund loans in specific areas where severe weather led to considerable crop damage. In 1933, the Farm Credit Administration took

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[18]Federal Farm Loan Board (1930, 2 and 12; 1932, 1-50).

[19]The paragraph is based on Halcrow 1953, 342-3.

over the decision making and administration of these emergency credit loans. For the first time it oversaw the development of a Production Credit Division, which authorized and provided initial capital stock to 12 production credit corporations, which made loans to production credit associations, each organized by 10 or more farmers in a mutual organization designed to make production loans for seed and machinery and production needs for farm animals. The credit associations could borrow from the Production Credit Corporation and had access to the Intermediate Farm Credit Banks.

The truly new farm programs during the 1930s were the ones specifically designed to limit supply to the market and thus raise the farm/nonfarm ratio of prices to levels seen during the Golden Era just prior to World War I. Farmers had protested their plight since the late 1800s and sought ways to limit output and raise prices. In both 1927 and 1928, their lobbying led Congress to pass versions of the McNary-Haugen bill designed to raise farm prices without supply controls, but each was vetoed by the President Calvin Coolidge. In 1929, the Agricultural Marketing Act established the Federal Farm Board, with a revolving capital of $500 million, to work with cooperatives to market crops and limit the amount of surpluses that might have driven crop prices downward.[20] The New Deal response in 1933 was to create two new programs: the Agricultural Adjustment Administration (AAA) grant program to pay farmers to take land out of production and the Commodity Credit Corporation (CCCF) nonrecourse loan program to provide a floor on the prices received for certain farm commodities.

The centerpiece of the New Deal farm program was the rental and benefit program administered by the Agricultural Adjustment Administration (AAA). For specific crops AAA

[20]Libecap (1998, pp. 188-9) describes the development of farm programs from 1870 to the present. For a long-term view of the farm programs see Chapter 16.

offered production agreements to farmers that paid them to take land out of production. The funds for the program originally came from a processing tax on farm output at the location where it was first processed, for example, a tax on ginned cotton. Farmers were not required to accept the agreements, but the AAA set attractive terms and actively marketed the programs through county agents and local boards of farmers. In the tobacco and cotton programs national decision-makers added a degree of coercion to the system by levying heavy taxes on any production beyond designated limits. As a result, the sign-up rates ranged between 70 and 95 percent for most types of crops. In 1935, the Supreme Court found in *United States v. Butler* that the processing tax used to fund the AAA program was unconstitutional. Farm interests who had warmed to the AAA pressed the Roosevelt Administration to re-enact a similar program that overcame the constitutional objections. Soon thereafter, a new AAA was established that made payments to curtail land use, adjust production, and conserve the soil under the Soil Conservation and Domestic Allotment Act of 1935 or 1936. The new AAA tried to add restrictions on output for nonparticipants.[21]

The other major New Deal attempt to raises farm prices was the Commodity Credit Corporation (CCCF). The CCCF loaned funds to farmers for crops at prices set at high target levels. If crop prices exceeded the target level when the time came to repay the loan, the farmer would sell the crop on the market and repay the government loan. If crop prices were below the target, the farmer gave the crop to the government as payment on the loan. From the beginning the CCCF set the target prices above market prices, so the CCCF program operated as a price support program.

[21]For a detailed description of the first three years of the AAA, see Nourse et. al., (1937).

The AAA and most loan programs were primarily oriented toward large farmers, but also distributed smaller amounts of funds in programs designed to eliminate areas of persistent rural poverty. The original FERA legislation called for aid to low-income farmers in the form of relief, the Resettlement Administration moved some farmers to better land, and loans and grants from other programs were provided to aid small family farms. These farm programs were later transferred to the Farm Security Administration formed in 1937. Other smaller programs were designed to aid farmers hit by droughts and hard hard times.[22]

The AAA and the CCCF were administered at multiple levels of governments. The basic benefit payments per acre taken out of production, the acreage allocations, rules for restrictions, and target prices were set for each crop at the national level. This made sense because the prices of AAA crops were largely determined in national markets with some variation around the prices due to transportation costs. Meanwhile, the allocation of acreage reductions within states and the negotiations with individual farmers were administered by state and local boards of farmers with help from county extension agents. Under the initial law the program was funded by a processing tax on the commodity itself, tying overall funding to production throughout the country. After the AAA was declared unconstitutional in 1935, the program was funded out of the general revenues. The AAA operations in the long run fit a picture of limited national discretion in the sense that the national rules were set for everybody producing the same crop, while deviations from the rules for specific groups were decided at a much lower administrative level.

Observers of the short term impact in mid-1930s were unsure whether the AAA payments to take land out of production were effective in raising prices. Several studies suggest

[22] For more discussion of these types of programs, see Alston and Ferrie (1999) and Fearon (2007).

that farmers took the lowest quality land out of production first and then found ways to raise the productivity on other acreage by using more fertilizers and adopting new technologies like tractors as labor-saving devices. Efforts to determine the AAA's impact have been confounded by the series of major climatic disasters, including droughts in some areas, floods in others, and the Dust Bowl, that coincided with the AAA's introduction and also contributed to drops in production and higher prices.[23]

Given that the programs were mostly voluntary, the AAA likely benefited the farmers who accepted the production agreements. However, the AAA appears to have had adverse effect on the incomes of farm laborers, tenants, and sharecroppers because it led to declines in the demand for labor. Narratives and recent quantitative studies show that in cotton counties with more AAA cotton spending, the number of black and white croppers declined by similar amounts, while the number of black managing share tenants declined more sharply than the number of white tenants. Infant mortality rates, which tend to be highest among low income people, were higher for both blacks and whites in southern counties with more AAA spending. Studies of per capita income at the state level and retail sales and in-migration at the county level show slight negative effects of AAA spending, consistent with a view that the positive benefits to the recipients of AAA funds were offset by losses among other members of rural society.[24]

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[23]See Libecap (1998, footnotes on p. 193) for discussion of weather versus AAA as a cause of reduced output. Some very preliminary examinations of cotton output at the county level suggest that he may be right. Whatley (1983), and Clarke (1994) discuss and Sorensen, Fishback, Kantor, and Rhode (2011) measure the positive impact of the AAA on tractor diffusion.

[24]Alston (1981) describes a reduction in the demand for farm labor. The negative effects of the AAA on tenancy have been discussed by Alston and Ferrie (1999), Biles (1994, 39-43), Saloutos (1982) and Whatley (1983) and measured at the county level by Depew, Fishback, and Rhode (2012). The infant mortality effects of the AAA are found in Fishback, Haines, and Kantor (2001). The slight negative effects of the AAA on state income are shown in Fishback and Kachanovskaya (2011) and the negative effects on in-migration and retail sales per capita are measured in Fishback, Horrace, and Kantor (2005, 2006).

On the positive side, the AAA's stimulus of out-migration of low income croppers and workers from poor areas appears to have had the side benefit of reducing malaria death rates (Barreca, Fishback, and Kantor 2011). Over the long term the AAA had the positive effect of preventing later recurrences of the Dust Bowl of the 1930s. The dust storms developed in part because small farmers settled the areas and had little incentive to use farming techniques designed to prevent soil erosion because their farms were too small to get the benefits of erosion prevention. High winds and drought in the 1930s blew the loose soils into the sky. The post-1935 AAA encouraged the development of large farms and gave farmers incentives to prevent soil erosion, so that no Dust Bowl developed when wind and drought hit the area in the 1970s (Hansen and Libecap 2004).

VI. The National Recovery Administration and President' Reemployment Agreement

Just as the New Deal sought to raise farm prices, it established a set of policies designed to raise industrial prices and wages. Since the early 1920s, industry associations facing declining demand and excess capacity, like coal mining, had lobbied Congress to develop institutions that would protect them from "cutthroat competition." During the Depression the problems of excess capacity and falling demand hit most industries as the price level fell by 30 percent and lobbying for some government action accelerated. Meanwhile, both the Hoover and Roosevelt administrations sought to maintain demand by keeping wages high. Hoover met with industry leaders and asked them to voluntarily maintain hourly wage rates at a higher level (Rose 2010).

The Roosevelt Administration established the National Recovery Administration (NRA) in June of 1933. The NRA was intended to foster the collaboration of industrialists, workers,

and consumers in each industry to establish "fair codes of competition" governing minimum prices, quality standards, trade practices, wages, hours limits, and working conditions. Once an industry code was approved by the NRA, it legally bound all firms in the industry, even those not involved in writing the code. While waiting for the codes to be written, a large number of firms signed President's Reemployment Agreements (PRAs) in the summer of 1933 that required them to raise wages and cut weekly hours and try to increase the number of their employees. The administration advertised the NRA and PRAs by sponsoring parades, advertisements, and sending 1.5 million volunteers door-to-door with a goal of getting 20 million people to sign pledges that they would support NRA firms (Taylor 2010). Within a year most industries had established codes. In many sectors, codes were largely written by the leaders of trade associations with some influence by consumers, because relatively few industries had a strong union presence. Many small firms complained that the codes favored the large firms that were so prominent in writing them (Bellush 1975).

Microeconomists who study the NRA bluntly describe the codes as cartel arrangements enforced by the national government. The codes violated nearly every canon of standard antitrust law and could only be put in place because the national government shut down antitrust enforcement in the period. Cartel theory suggests that the effectiveness of a cartel agreement often is reduced because firms have incentives to ignore the rules by lowering price and selling more output. In fact, industries with more diverse firms and products had trouble coming to agreement on the codes and then trying to enforce them, even with government backing. Industries had more success with more complex codes that established restrictions on capacity, production quotas, and provided for data collection for monitoring. The extent to which cartels raised prices and lowered output depended heavily on these rules. Firms signaled that they were

following the codes by displaying the Blue Eagle symbol of the NRA, but town gossip suggested that a number of violators were displaying the symbol just as prominently. The Supreme Court struck down the NRA as unconstitutional in the Schechter Poultry Case in 1935. Unlike the AAA, there was little support for re-enacting the NRA from many quarters and the Roosevelt administration let it die.[25] A few industries, however, were able to re-implement some provisions of their codes through separate legislation.

Macroeconomists have split on the impact of the National Recovery Act and high wage policies. Several studies suggest that Hoover's jawboning to maintain hourly wage rates at 1929 levels contributed to higher unemployment in the early 1930s, although they differ on the size of the impact. Simulations from a structural model built to measure the impact of cartels and high wage policies and the absence of antitrust enforcement suggests that the recovery from 1933 to 1939 was slowed substantially by the NRA and New Deal labor policies. In contrast, other macroeconomists see the NRA and high wage labor policies as part of a package of policies that included the move off of the gold standard, increases in national spending, and looser Federal Reserve policy designed to abruptly change expectations about future deflation. Their simulations suggest that the policy package's success in reversing deflation was the key to keeping GDP from declining even more after 1933. These studies, however, do not isolate the impact of the NRA alone.[26]

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[25]Bellush (1975) offers a good administrative history of the NRA. Alexander (1997) and Klein and Taylor (2008) show the effect of diversity on difficulties in agreeing on and enforcing codes. Klein and Taylor (2008) and Taylor (2007, 2010) analyze the impact of NRA codes and PRA agreements on prices and quantity in various industries.

[26] For discussions of Hoover's high wage policies, see Ohanian (2011) and Rose (2010). Ohanian and Cole (2004) developed the simulations that show a negative effect of the NRA. Building on work by Temin and Wigmore(1990), Eggerttson (2008) and (2012) developed the simulations for the package of programs that included the NRA.

One goal of the PRA and NRA was for labor to share in the economic profits generated by the codes. An industry-fixed effects analysis of monthly data by industry from 1927 through 1937 shows that hourly wage rates were substantially higher and employment somewhat higher when the labor-oriented PRAs were in place, but hourly wages were only slightly higher and total employment lower during the periods covered by NRA codes. These benefits were offset by weekly hours worked that were low enough that weekly wages were lower (Taylor, 2011).

VII. Union Policy and Minimum Wages

The NRA and other laws passed in the 1930s dramatically changed the landscape for unionization. Various states had passed laws outlawing yellow dog (nonunion) contracts, stopping injunctions against union activity, and providing antitrust protection for unions, although other states had laws that made it more difficult to unionize. The Clayton Act of 1914 had exempted unions from antitrust laws. In 1932, Hoover and the Republican Congress approved the Norris-LaGuardia Act that stopped injunctions against peaceful union activity by federal courts, outlawed yellow dog contracts, and allowed workers to form unions without employer interference. Section 7a of the NIRA established standard language for the codes that gave workers the right to bargain collectively through the agent of their choice. After the NRA was declared unconstitutional, The National Labor Relations (Wagner) Act of 1935 reconstituted the right of workers to collective bargain through their own representatives from section 7a of the NIRA. Up to that time, the "at will" doctrine of employment followed by the courts allowed either the employer or the worker to terminate the employment relationship. Employers had the right to refuse to negotiate with union representatives and the right to refuse to recognize a union even in cases where the vast majority of workers had unionized. Under New Deal legislation workers acquired the right to vote on union representation. When a majority of workers voted in

favor, the employer was required to recognize the union and enter into a collective bargaining agreement. In addition, employers could no longer establish company unions as alternatives to independent organizations. The National Labor Relations Board (NLRB) was established to oversee union elections and the collective bargaining process. Union membership expanded rapidly through a mixture of union recognition strikes and union elections, particularly after the law was declared constitutional in 1937. In some cases both before and during the 1930s, when the press for union recognition met staunch resistance from employers, strikes could turn violent. One of the benefits of the NLRB policies was to regularize the union recognition process and the incidence of violent strikes has diminished sharply since.[27]

The Fair Labor Standards Act (FSLA) of 1938 established the national government's role in setting a national minimum wage, overtime requirements, and child labor restrictions. By this time many states had limited child labor with specific child-labor laws and school attendance laws and provided laws to limit work hours for women. During the Progressive Era, proponents of wage and hour limits for male workers had long been frustrated by court decisions preventing limits on male labor contracts. The FLSA was passed when a significant subset of employers joined with union leaders and reformers to set a minimum that was most often binding only in low wage industries in the South while agricultural workers, domestic workers, and employers not involved in interstate commerce were exempted from the act. In the aftermath of the act, northern firms expanded employment while southern firms reduced employment in the textile industry, as southern firms shifted toward new mechanized production processes. In the lumber industry war-related government purchases of lumber fueled a large boom in lumber output, but employment grew much faster in the North than in the South, even though a majority of southern

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[27]For descriptions of the state laws see Fishback, Holmes, and Allen (2010). Freeman (1998) describes the New Deal Labor Legislation.

lumber firms dropped out of interstate commerce to become exempt from the FLSA (Seltzer, 1997).

VIII. The Reconstruction Finance Corporation

As the Federal Reserve System allowed the money supply to decline in the early 1930s, the Hoover Administration sought other ways to inject liquidity into the economy by forming the Reconstruction Finance Corporation (RFC) in February 1932. The RFC was modeled after the War Finance Corporation of World War I. Its first moves included making loans to 4,000 banks, railroads, credit unions and mortgage loan companies to provide assets that would jumpstart commercial lending. Among the most important programs was the provision of loans to troubled banks to seek to provide them with enough liquidity to survive bank runs. Recent studies suggest that these initial loans were not successful because the RFC loans were given first priority over depositors and other lenders in situations where the bank failed. As a result, banks had to hold the assets that they could sell most easily to insure repayment of the RFC loans. These assets could not then be used to repay depositors when the bank failed. When the RFC began to accept more risk by purchasing preferred stock in the troubled banks, it was more successful at staving off bank failures.

The RFC gave the Roosevelt administration enormous flexibility. It retained control of a large supply of funds that could be loaned out and had the authority to borrow still more funds without having to constantly return to Congress for new appropriations. As the loans were repaid, the RFC continually had new funds to loan out again. "By the mid-1930s, the RFC was making loans to banks, savings banks, building and loan associations, credit unions, railroads, industrial banks, farmers, commercial businesses, federal land banks, production credit

associations, farm cooperative, mortgage loan companies, insurance companies, school districts, and livestock credit corporations." Perhaps even more importantly, the RFC became the banker to many of the New Deal programs, providing loans and/or startup working capital to the FERA, PWA, Home Owners' Loan Corporation (HOLC), FCA, the Federal Housing Administration (FHA), REA, and the WPA.[28]

The RFC's record at stimulating recovery is somewhat mixed. Hoover's original goal for the RFC to expand commercial credit to 1929 levels was not met until the end of the 1930s. For example, RFC loans to railroads and industries helped delay bankruptcies for businesses and railroads with conflicting effects. The delays gave financial institutions more time to dump their railroad bonds. However, the railroads receiving RFC support delayed expenditures on maintenance and capital improvements, while the ones who went through bankruptcy made these investments because they were necessary to attract the necessary capital for reorganization.

IX. Nonfarm Housing Finance

Between the late 1920s and early 1930s the housing and mortgage markets fell apart after a large-scale boom in housing following World War I. Between 1930 and 1934 housing prices in a group of representative communities had fallen an average of 33 percent, 20 percent more than non-housing prices fell during the period (Wickens, 1941). The number of nonfarm housing starts fell from levels above 750,000 in most years in the 1920s to around 100,000 in 1933 (Grebler, Blank, and Winnick, 1956, Table L-6). As incomes declined, hundreds of thousands of families fell behind on their mortgage payments. Many mortgages were interest-

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[28]The descriptions in this section on the RFC are based on Olson (1988) and Jones (1939, 1951), who was the director of the RFC. The quote is from Olson (1988, 43-4). The discussion of the RFC's impact on railroad investments is based on Mason and Schiffman 2004. The impact of the RFC on bank failures is discussed in Mason (2001) and Mason and Mitchener (2011)

only 3-year to 5-year mortgages with a balloon payment of the principal, which was typically about 50 to 60 percent of the value of the house at the end. Many balloon payments came due in 1932, 1933, and 1934. In normal times the mortgages were routinely renewed, but in the early 1930s most mortgage lenders had seen sharp drops in the funds available to loan and thus sought full repayment. Many lenders modified the loans in hopes of future repayment but each new wave of mortgages coming due and drops in loan funds led to sharp increases in the number of foreclosures.[29]

Between 1932 and 1933, 28 states passed foreclosure moratoria to give borrowers more time to repay and/or to make foreclosures more costly, but the moratoria was only a stop-gap solution that made the situation worse for lenders. In 1932, Hoover and the Republican Congress set up a Federal Home Loan Board of 12 regional banks to make short-term discount loans to lenders who were in good shape and needed short-term loans to fix temporary mismatches between their loan funds and borrowers demands for mortgages. But the banks focused on building and loan associations and largely ignored other mortgage lenders. Further, they only offered discount loans that were backed by mortgages that were in good shape and thus did little to meet the problems of frozen credit for lenders with a large number of loans where the principal came due.

During the First Hundred Days the Home Owners' Loan Corporation (HOLC) was created to help nonfarm mortgage borrowers who were in trouble through "no fault of their own." The HOLC purchased over 1 million loans with an average value of $3,000 from lenders using HOLC bonds that were fully guaranteed by the national government after the first year. In

[29] The information on the HOLC comes from Rose (2011), Courtemanche and Snowden (2011), and Fishback, et. al. (2011) and Fishback, Rose and Snowden (2012).

more than half the purchases the HOLC paid a bond value for the loans equal to the entire debt owed to the lender, including principal, interest, and any insurance and tax payments made by the lender. The rest typically covered principal, insurance and tax payments and part of the interest owed. In essence, the HOLC replaced the toxic assets on the lenders books with bonds that had a highly liquid market.

The HOLC then restructured the loans for the borrowers. Most had to repay the full value of their debt, but they received generous loan terms. The HOLC interest rate nationwide was 5 percent when most of the original loans and most market rates on good loans were 6 to 8 percent. The original loans were replaced by amortized 15-year loans with equal payments that fully retired the debt at the end. Thus, the borrowers with short interest-only balloon loans could spread their payments over an extended period of time. Borrowers with longer-term hybrid loans from building and loan associations no longer faced the problem that the number of their loan payments required to pay off the loan might increase if others in the building and loan failed to repay their loans. The HOLC also offered an option where the borrowers could pay only interest for the first three years and then switch to the long term amortized loan. In 1939 the interest rate was lowered to 4.5 percent.

Even though the original loans had been high quality loans with borrowers borrowing at most 60 percent of the value of the home--75 percent if they took out a second mortgage with double the normal interest rate--the drops in income and housing prices during the Depression had turned them into troubled loans. The typical HOLC borrower was over two years behind on principal and tax payments at the time the HOLC refinanced. As a result, the HOLC ended up foreclosing on nearly 20 percent of the refinanced loans by 1940.

Estimates suggest the HOLC had significant effects on home ownership and housing prices in the roughly 2500 counties (out of 3060) with fewer than 50,000 people. With the HOLC in place nonfarm home ownership rates in these counties fell from 45 to 40 percent between 1930 and 1940. Had the HOLC not been in operation they likely would have fallen to 37 percent. Nonfarm housing price in these counties fell by 37 percent with the HOLC in place, but likely would have fallen by 47 percent without the HOLC. The same studies find weaker effects for larger counties, but the methods used for identification of the effects in the smaller counties were not as effective in larger counties (Courtemanche and Snowden 2011 and Fishback, et. al., 2011).

When the HOLC was created, Congress expected it to be a money losing proposition. Official government estimates suggest that after the HOLC was wound down in 1951 that the mortgage purchase and refinance program lost about $53 million, or 2.7 percent of the $3 billion in loans made. This likely understates the true size of the subsidy given to housing markets because the HOLC's interest costs were lower because HOLC bonds were guaranteed by the national government. Had the HOLC been created without the government bond guarantee the interest costs would likely have been at least one percent higher. Adding one percent to the interest rates on HOLC bonds would have increased the HOLC's subsidy to housing markets to $353 million or 12.7 percent of the loans made. Each additional 1 percent in interest costs would have raised the subsidy by $300 million more.

The New Deal created a variety of other housing finance programs that had much longer-term rather than shorter term effects on the economy. The Federal Housing Administration in 1934 began providing mortgage guarantees to lenders for Repair and Reconstruction loans for one to four unit family housing. In 1935 the guarantees were expanded to cover Mortgage loans.

After they were both in operation, they were guaranteeing values of new loans each year equal to about 0.74 percent of 1929 peak GDP. The Federal Savings and Loan Insurance Corporation was created to guarantee deposits at Savings and Loans, which became the dominant lenders for nonfarm real estate in the 1930s. In 1938 Fannie Mae (Federal National Mortgage Association) was created to create a secondary market for mortgages by purchasing mortgages from lenders and giving them more loan funds to make more mortgage loans. Originally backed by the national government, Fannie was supposed to have become an independent corporation with no government guarantees in 1968. In the fall of 2008, however, Fannie was taken over by the government when it sunk into financial trouble.

X. Financial Regulations

Large numbers of banks failed during the early 1930s as Federal Reserve policy makers focused on helping maintain the Gold Standard and considered their reductions in the discount rate to be stimulative, even as deflation led to extraordinarily high real interest rates. Difficulties in the banking sector erupted again in January and February of 1933. President Hoover and President-Elect Roosevelt jockeyed over how to deal with these issues, while most states declared Bank Holidays to ease the financial pressures on commercial banks. The day after Roosevelt was inaugurated he declared a National Bank Holiday and government auditors set to work to determine the soundness of the banks. Once declared sound, banks reopened, while negotiations began to improve the soundness of weaker banks. Within a month the pressure of the Federal Reserve to maintain the gold standard was eliminated when the U.S. moved off of the gold standard and the dollar was devaluad.

Roosevelt's Bank Holiday and the RFC bank loans were temporary methods for solving problems with bank panics. However, the stock market crash and problems in the banking and construction industries led to pressures for more permanent solutions, including a wide variety of regulations and the development of new financial institutions that are still with us today. The Securities and Exchange Commission (SEC) was established to monitor the stock markets, reporting requirements for firms issuing stock, insider trading, and enforce imposing rules on market trades. In commercial banking the Banking Act of 1933 restricted interest payments on demand deposits with Regulation Q and created the "Glass-Steagall" wall between commercial banks and investment banks by prohibiting depository institutions from serving as underwriters for securities.

The New Deal banking legislation did little to resolve the problems with bank failures caused by bans on branch banking by a large number of states. This emphasis on unit banks led quite a few to suspend payments during the 1920s and 1930s when their communities hit hard times because they did not have a diversified range of assets. Experiments with deposit insurance by state governments to stem the tide of bank failures in the early 1900s had proved largely unsuccessful. Even so, the Roosevelt Administration established the Federal Deposit Insurance Corporation (FDIC) and the Federal Savings and Loan Insurance Corporation (FSLIC) to provide national government insurance of deposits up to a set limit. Through the late 1970s, the stability of the banking system was often credited to deposit insurance, but problems that arose with savings and loans in the 1980s and the recent financial struggles in 2007 and 2008 have raised more doubts.[30]

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[30] White (1998), Mitchener and Mason (2010) and Calomiris (2010) provide summaries of New Deal banking policies. The studies of state deposit insurance and problems in the banking industry were performed by

IX. The New Deal and Lessons for the Present for Federal Systems

The New Deal developed a wide range of programs and regulations designed to solve a multitude of perceived problems in the economy. The tinkering extended to many smaller programs and regulations not discussed in our survey. What was truly new about the New Deal was the creation of the AAA farm programs to pay farmers to take land out of production, the nationwide Social Security program for American workers, the NRA's codes of competition, the HOLC's purchase and refinance of mortgage loans, and federal financing of farm production loans. The NRA was eliminated by Supreme Court decree and the HOLC ended by design, but the other programs continue today. A significant share of New Deal activity involved the federal government becoming involved in regulations and spending programs that had long been handled by state and local governments. Another significant share of New Deal spending and regulation continued activities in which the federal government was already involved. The latest innovations in New Deal research have included a significant number of quantitative assessments of the local impacts of the various programs that offer insights into which programs were successful and which were not.

The New Deal also had significant impact on the location of government activity within the federal structure of U.S. governments in four ways. First, the New Deal largely strengthened the role of the federal and state governments at the expense of local governments. Second, the national government began to give grants to state and local governments to aid them in dealing with poverty and unemployment and the building of local public works. In nearly all of these cases involving large fiscal expenditures, the programs tended to be administered and funded

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Alston, Grove, and Wheelock (1994), Wheelock (1992), White (1983), Calomiris and White (2000), and Richardson and Chung (2003).

jointly by the national and state governments. Third, regulatory programs that strongly influenced economic activity but had little fiscal impact were more likely to be nationally administered. Fourth, the spending programs that persisted and became permanent tended to limit the discretion of national program administrators in ways that reduced the ability of the national administrator to treat states differently. If a program did not limit national discretion at its inception, as in the relief programs, the program either evolved limits or it was eliminated. Giving national administrators' long run discretion over the distribution of funds across states was a power that was deeply resisted in the 1930s, as it had been deeply resisted in American political history since the revolution of the 1770s.[31]

Rules rather than discretion were the order of the day in both the fiscal and regulatory programs. Regulatory programs were not just national in being administered by the national government, they were national in the sense of applying equally to everyone. This need not have been the case, as was amply shown in the early days of the New Deal when emergency programs did not treat everyone the same.

What lessons do we draw from this part of the New Deal experience for the current economic and political crises? Americans already know these lessons and they were reflected in the response to the crisis in 2008. Europeans are just now going through the pressures and conflicts that a major economic downturn creates for a federal fiscal, monetary, and political union. So far they seem to be largely ignoring the New Deal lessons. The fiscal crisis of member states has been transmitted throughout the EU through the banking system, the currency union, and the extensive holdings of national member government debts in the private banks of

[31] It is interesting to note that the Great Society programs of the 1960s in which the national government dealt directly with local governments were quickly eliminated after Reagan and the Republicans captured the Presidency and the Senate, but the Great Society programs that were jointly administered with the states, particularly Medicare, have persisted.

other EU countries. Rescuing the finances of member states has raised a whole host of unresolved political issues about fiscal relations between the center and the members. As of early 2012, it appears that the EU is attempting to move towards changing their political union in a manner that creates rules for the member states and discretion for the center. This is exactly the opposite of the long run American experience where rules for the center and discretion within the rules for the member states have been the common pattern.

Table 1
Shares of Government Expenditure by Level of Government
Total Government Expenditures as Share of GDO
National Grants to State & Local Governments as share of S&L Revenue

Year	Share National (1)	State (2)	Local (3)	Expenditures/ GDP (4)	Grants/ S&L Rev (5)
1902	0.34	0.08	0.58	0.07	0.01
1913	0.30	0.09	0.61	0.08	0.01
1922	0.39	0.12	0.49	0.13	0.02
1927	0.30	0.13	0.57	0.12	0.01
1932	0.32	0.16	0.51	0.21	0.03
1934	0.39	0.17	0.44	0.19	0.10
1936	0.49	0.15	0.36	0.20	0.09
1938	0.43	0.17	0.39	0.21	0.06
1940	0.45	0.17	0.38	0.20	0.07
1942	0.76	0.08	0.16	0.28	0.06
1948	0.61	0.14	0.24	0.20	0.07
1952	0.69	0.11	0.20	0.28	0.07
1957	0.62	0.13	0.25	0.27	0.07
1962	0.60	0.14	0.26	0.30	0.10
1967	0.59	0.15	0.26	0.31	0.12
1972	0.52	0.18	0.30	0.32	0.14
1977	0.53	0.19	0.28	0.34	0.16
1982	0.58	0.17	0.25	0.38	0.14
1987	0.57	0.17	0.25	0.38	0.12
1992	0.54	0.20	0.26	0.39	0.13

Source: Calculated from information in Census of Governments, State and Local Financial Data, various years.

Table 2
Average Annual Funds Distributed by the Federal Government Across States by Program in Fiscal Years of Operation in 1930 Dollars per 1930 population.

Category	Fiscal Years for Program between 1923-1939	New Deal Acronym Used in Text	Level of Government Pre-New Deal	Annual Spending per 1930 Person in 1930$ during Years in Operation		
				Roosevelt 1934-1939	Hoover 1930-1933	Harding/ Coolidge 1923-1929
RELIEF GRANTS						
Civilian Conservation Corps	1934-1939	CCCR	State and Local	3.44	0.04	0.00
Civil Works Administration Work Grants	1934	CWA	State and Local	8.18	0.00	0.00
Federal Emergency Relief Administration Grant	1934-1935[a]	FERA	State and Local	15.19	0.00	0.00
Social Security Administration Public Assistance Grants	1936-1939	SSAPA	State and Local	1.91	0.00	0.00
Social Security Administration Administrative Assistance Grants	1936-1939	SSAAD	State and Local	1.44	0.00	0.00
Works Progress Administration Work Relief Grants	1936-1939	WPA	State and Local	16.52	0.00	0.00
U.S. Employment Service	1934-1939	USES	State and Local	0.13	0.00	0.00
Vocational Education	1930-1939[b]	VE	Federal	0.13	0.08	n.a.s
AID TO VETERANS						
Soldiers and Sailors Homes	1923-1939	SSH	Federal	0.01	0.01	0.01
Veterans Administration Grants	1923-1939	VA	Federal	5.20	6.67	4.64
Adjusted Service Certificate	1936[c]	ASCG	Federal	33.84	0.00	0.00

Grants (Veterans' Bonus)						
Adjusted Service Certificate Loans	1927-1935[d]	ASCL	Federal	-1.35 in 1934 and 0.64 in 1935	3.74	0.22
Adjusted Service Certificate Loans Repayments	1936[e]		Federal	-16.14	0.00	0.00
Veterans Rehab Spending	1923-1930[f]	VR	Federal	n.a.s.	n.a.s	0.39
PUBLIC WORKS GRANTS						
Public Works Administration Federal Project Grants	1934-1939	PWAF	Federal	1.04	0.00	0.00
Public Works Administration Nonfederal Project Grants	1934-1939	PWANF	State and Local	1.66	0.00	0.00
Tennessee Valley Authority Spending	1934-1939	TVA	Federal	0.36	0.00	0.00
State Highway Federal Aid (Public Roads Administration after 1933)	1923-1939	PRA	Federal	2.56	1.50	0.56
Public Housing Grants under the PWA	1935-1939	PWAH	Local	0.41	0.00	0.00
River and Harbor Grants Reported by the Army Corps of Engineers (not Relief or Public Works)	1923-1939	RH	Federal	1.21	1.01	0.59
Bureau of Reclamation Loans Reported by Bureau of Reclamation	1923-1939	REC	Federal	0.51	0.15	0.06
Public Building Administration Grants	1930-1939	PBA	Federal	0.40	0.84	#VALUE!
PUBLIC WORKS LOANS						
Public Works Administration Loans for Nonfederal Projects	1934-1939	PWANF	State and Local	0.83	0.00	0.00
U.S. Housing Authority Public Housing Loans	1939	USHA	Local	0.54	0.00	0.00
AGRICULTURAL GRANTS						
Agricultural Adjustment	1934-1939	AAA	None	4.66	0.00	0.00

Administration Grants						
Farm Security Administration Grants	1935-1939	FSA	None	0.52	0.00	0.00
Federal Surplus Commodity Corporation Grants	1938-1939	FSCC	None	1.00	0.00	0.00
Soil Conservation Service Grants	1934-1939	SCS	None	0.16	0.00	0.00
Agricultural Experiment Station Grants	1923-1939	AES	Federal	0.05	0.04	0.07
Agricultural Extension Works Grants	1923-1939	AEW	Federal	0.14	0.08	0.00
Colleges of Agricultural and Mechanical Grants	1923-1939	CAM	Federal	0.03	0.02	n.a.s
AGRICULTURAL LOANS						
Commodity Credit Corporation Loans	1934-1939f	CCCA	None	1.94	0.00	0.00
Disaster Loan Corporation Loans	1937-1939	DLC	Federal	0.05	0.00	0.00
Farm Credit Administration Emergency Crop and Feed Loans	1923-1939[g]	FCAEC	Federal	0.29	0.44	0.01
Farm Credit Administration Federal Land Bank Loans	1923-1939[g]	FCALB	Federal	3.62	0.80	1.02
Farm Credit Administration Production Credit Loans	1934-1939[g]	FCAPC	None	2.29	0.00	0.00
Joint-Stock Bank Farm Mortgage Loans	1923-1932[g]	JSB	Federal	0.00	0.03	1.00
Farm Security Administration Loans	1936-1939	FSAL	None	0.82	0.00	0.00
Farm Tenant Purchase Loans	1938-1939	FTP	None	0.16	0.00	0.00
Rural Electrification Administration Loans	1936-1939	REA	None	0.30	0.00	0.00
MISCELLANEOUS						
Education Grants to States	1923-1939	ED	Federal, State and Local	0.17	0.10	0.09

National Guard Grants	1923-1939	NG	Federal	0.30	0.30	0.23
Home Owners' Loan Corporation Loans	1934-1936	HOLC	None	10.56	0.00	0.00
Reconstruction Finance Corporation Loans	1932-1939	RFC	Federal	3.50	9.84	0.00
HOLC and Treasury Loans	1934-1939	HOLCT	Federal	0.43	0.00	0.00
Federal Housing Administration: Value of Title 1 Repair and Reconstruction Loans Guaranteed by	1935-1939	FHAR	None	1.62	0.00	0.00
Federal Housing Administration: Value of Title II Nonfarm Home Mortgage Loans Guaranteed	1935-1939	FHAM	None	3.58	0.00	0.00

Source: Based on data from Office of Government Reports, U.S. Census. Bureau, *State Financial Statistics*, U.S. Treasury Department, *Annual Reports*. For details on the construction of the data see Fishback and Kachanovskaya (2011, Data Appendix). This is built up from a data set on grants and loans in each state and likely understates total federal spending on each program to the extent that there was no record of the state kept for that type of spending. Annual per capita Income in 1930 dollars in 1929 was $820 based on series CA-11 and CA13 in Carter, et. al. (2006). There had always been some central aid to state and local governments, beginning with the national assumption of state debts in the 1790s. But intergovernmental grants in existence by 1900 were a small part of the public sector. They included textbooks for the blind (1879), agricultural experiment stations (1887), state soldiers homes (1888), resident instruction in land-grant colleges (1890), and irrigation (1894). These were followed by grants to state marine schools (1911), state and forestry operations (1911), the agricultural extension service (1914), vocational education (1917), and vocational rehabilitation (1920). But these programs were, by 1920, overshadowed in fiscal terms by the highway construction grants begun in 1916. By 1922, $92 million of the $118 million in federal grants, or 78 percent, were for highways. A maternity and infancy health plan was begun in 1921, which gave rise to the famous decision in Massachusetts vs. Mellon (262 U.S. 447 (1923)) that conditional grants did not impinge on state sovereignty, since states were free to forgo the grants (Moehling and Thomasson 2012). By 1930 there were 15 federal grant programs to state and local government in operation, dominated by the highway construction grants. But they were still small in the aggregate; state grants to local governments were about five times as large as federal grants to state and local governments combined.

n.a.s. means not available separately.
[a]The FERA spent a small share of its funds between July 1935 and March 1937 as programs wound down.
[b]Vocational education information not available separately in 1920s so far.
[c]The ASC cash payments were distributed in June and July of 1936 and thus straddled the fiscal year.
[d]Loans for 1934 and 1935 reported separately because repayments of ASC loans outweighed new loans significantly nationwide. In 1935 new loans made outweighed repayments.

[e]When the ASC cash payments were made in June and July 1936, this amount per capita went to repaying ASC loans.
[f]CCC loans included loans not listed by state, so this understates amounts.
[g]These loans are reported for the calendar year.

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