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**Mothers' Pensions and Female Headship**

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In 1970, 12 percent of families with children under the age of 18 were headed by single mothers. By 2000, that fraction had increased to 26 percent (U.S. Census Bureau, 2001). This dramatic change in American family structure has been cause for some concern. Families headed by single mothers have high rates of poverty, and children raised in such families are more likely to drop out of school, have children out-of-wedlock, and have difficulties in the labor market in their young-adult years (see McLanahan and Sandefur 1994). In the search to explain the increase in single-mother families in the past few decades, much of the attention has been focused on the relationship between female headship and the American welfare system. In most states, only families headed by single parents are eligible for cash assistance programs. This feature has led some to argue that the welfare system encourages divorce and separation and discourages marriage.

Economists have attempted to examine this issue by estimating the relationship between female headship and the level of welfare benefits. Early analysis used cross-sectional data and relied on the variation in benefit levels across the states to identify the “welfare effects.”<sup>1</sup> For the most part, these studies find statistically significant welfare effects: as benefits increase, women are less likely to marry and more likely to head households. This evidence would seem to support the view that the welfare system discourages the formation of two-parent families. As the analysis has been extended to repeated-cross-section and longitudinal data, however, a slightly different and more complicated story has emerged. Moffitt (1994) and Hoynes (1997) find that when state fixed effects are controlled for, the relationship between benefit levels and female headship disappears for whites. As both authors document, this change occurs because state fixed effects are positively correlated with state benefit levels. In other words, states that offer high levels of benefits are those with large fixed effects, and states that offer low levels of benefits are those with small fixed effects. The disappearance of the benefit level effect when state fixed

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<sup>1</sup> See Moffitt (1992) for a review of this literature. See also Schultz (1994).

effects are included in the model indicates that white female headship does not respond to the year-to-year changes in the level of benefits. But the basic conclusion of these models is that states that offer the most generous welfare benefits have the highest rates of female headship for whites. In contrast, adding state fixed effects has no effect on the estimated relationship between welfare benefits and female headship for blacks.

As Moffitt (1994) acknowledges, this “raises as many questions as it answers” (p. 634). To understand the relationship between the American welfare system and family structure, we must understand the origin of the state fixed effects and their relationship to state welfare benefits. One explanation focuses on the role of welfare migration. If single mothers migrate to the states with the highest benefit levels, this would explain the patterns observed. But Hoynes (1997) casts doubt on this explanation by simply pointing out that the net migration of white single mothers in the period of study was out of the high-benefit states of the Northeast and Midwest and to the low-benefit states of the South and West (p. 110). Hoynes’ preferred explanation is that the fixed effects capture differences across states in population composition and attitudes towards single motherhood. Such factors would influence both the rate of female headship and the relative support for the welfare system. But this explanation presents another question: what was the origin of these differences in attitude? The example that Hoynes uses is that a strong two-parent family tradition in a state will lead to fewer female heads and less support for welfare programs. But how did the “strong two-parent family tradition” develop? Did this tradition proceed and determine the limited support for welfare programs in the state? Or, did the limited support for welfare contribute to the development of this tradition?

This paper attempts to address these issues by examining the relationship between mothers’ pension programs and female headship in the early twentieth century. In 1911, Illinois enacted the first statewide mothers’ pension legislation authorizing county governments to provide cash assistance to single mothers in their homes. Forty states had enacted similar legislation by 1920. Mothers’ pension programs were the first public cash assistance programs

explicitly targeted to single mothers. Hence, these were the first programs to create disincentives for maintaining and forming two-parent families. I examine the relationship between female headship and the provisions of state mothers' pension legislation in 1910 and 1920. I find evidence that states that would go on to enact relatively generous mothers' pension legislation had higher rates of white female headship in 1910. But there is also evidence of welfare effects in 1920 in the states that had enacted the most generous mothers' pension legislation. For black women, the story is different. There was no correlation between the relative generosity of mothers' pensions legislation and black female headship. But the rate of black female headship was related to the timing of the enactment of mothers' pension legislation in Southern states: states with the highest rate of black female headship in 1910 were among the last to enact mothers' pension laws.

### **Mothers' Pensions**

Public aid to single mothers had been discussed as early as 1898 when the New York state legislature passed a bill to provide grants to widows with dependent children in New York City. The governor refused to sign the bill, presumably on the advice of the mayor of New York (Leff 1973, 399). The take-off point for the mothers' pensions movement, though, was the 1909 White House Conference on the Care of Dependent Children. Much of the discussion at the conference centered on the plight of single mothers who were separated from their children by poverty alone. In fact, many charitable organizations in the early twentieth century encouraged impoverished mothers to place their children in orphanages or foster care (Leff 1973, 399). The irony, noted by many conference participants, was that the cost for caring for children in institutions or foster families was frequently much greater than what it would have cost to care for these children in their own homes. At the end of the conference, the participants issued the following resolution:

Home life is the highest and finest product of civilization. It is the great molding force of mind and of character. Children should not be deprived of it except for compelling and urgent reasons. Children of parents of worthy character, suffering from temporary misfortune and children of reasonably efficient and deserving mothers who are without the support of the normal breadwinner, should as a rule, be kept with their parents, such aid being given as may be necessary to maintain suitable homes for the rearing of children (as quoted in Leff 1973, 400).

The resolution continued, however, by stating that such aid be given “preferably in the form of private charity rather than public relief.” Nonetheless, this resolution served as the launching point for the drive for the public provision of aid to mothers with dependent children.

In 1911, Illinois passed the first statewide mothers’ pension law authorizing county governments to provide grants to mothers with dependent children. Other states quickly followed. In 1913, mothers’ pension legislation was discussed in 27 state legislatures and enacted by 17 (Leff 1973, 400). By the end of 1919, 39 states had enacted mothers’ pension laws. The diffusion of these laws was not only rapid; it also proceeded in an unusual pattern. Table 1 lists the states by year of enactment of mothers’ pension legislation. Some of the states which enacted legislation in the 1913 wave were small and predominantly rural and nonindustrial states such as Colorado, Nebraska, New Hampshire, Nevada, and South Dakota. Walker (1969), based on an examination of the diffusion of 88 different programs between the 1800s and 1965, argued that early innovators were typically wealthier, more industrial and more urban states. According to Walker’s “innovation scores,” fourteen states enacted mothers’ pensions legislation “too early.” The names of these fourteen states are italicized in Table 1 (Skocpol et al. 1993).<sup>2</sup>

State legislation did not establish state programs. Instead, the legislation authorized local governments – usually county governments – to provide mothers’ pensions. State legislation provided the general parameters under which these programs had to operate. These provisions varied to a fair extent across the states. One of the areas of greatest variation was in the eligibility

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<sup>2</sup> The movement for mothers’ pension legislation is also notable for the prominent role played by women. For a thorough discussion this issue, see Skocpol (1992) and Gordon (1994). Both Skocpol and Gordon describe the role of women in shaping welfare policy more generally in the early twentieth century.

requirements. Some states such as New York and New Jersey initially only permitted grants to widows. Other states extended coverage to deserted or divorced mothers and to mothers with institutionalized and incapacitated husbands. Still fewer extended coverage to unmarried mothers. Over time, states amended their laws to extend coverage. But even by 1931, only 20 states permitted aid to any needy mother, and two states – Connecticut and Utah – still only permitted aid to widows (U.S. Children’s Bureau 1933, 3). State legislation also typically specified the maximum monthly grant that could be provided to families of various compositions. These maximums too varied across the states. In 1919, the maximum grant specified for a family consisting of a mother and three children was \$18 in New Jersey and \$45 in Arizona and North Dakota (U.S. Women’s Bureau 1919). The sources of funding also differed across states. In the majority of states, funding was entirely local. Some state laws allowed counties to levy special taxes while others just stated that the funds should come out of general revenue funds. Some states, however, provided state funds for mothers’ pension programs.

Mothers’ pensions programs as implemented never lived up to their legislative success. Emma O. Lundberg in a report on mothers’ pensions written for the Children’s Bureau in 1926 commented that “Mothers’ aid administration offers the most obvious evidence of the seriousness of placing laws on the statute books, but failing to make them practically effective through adequate appropriations and proper administration” (U.S. Children’s Bureau 1926, 16). Many counties, most of them rural, refused to establish programs claiming that no eligible families lived within their boundaries (Leff 1973, 413). Mothers’ pensions programs, where they did exist, were generally underfunded. The grants provided were generally very low and typically did not even cover the basic expenditure requirements of families. The Children’s Bureau did a survey of the standards of aid in eight jurisdictions in the early 1920s. Of the surveyed jurisdictions, Boston was the most generous providing grants averaging \$17.49 per month per child (U.S. Children’s Bureau 1923, 141). But even this was inadequate to provide for a family’s basic needs. The administrators of the Boston program estimated that the food budget alone for a

mother and one child, age 6 to 13, in Boston during this period was \$24.27 (U.S. Children's Bureau 1923, 15). Mothers' pension programs also served a very select population. Even as state laws were amended to extend eligibility to deserted and unmarried mothers, the pension rolls consisted primarily of widows. A survey of mothers' pension programs in 1931 by the Children's Bureau found that 82 percent of pension recipients were widows. More disturbing though was the racial composition of pension recipients: 96 percent were white, 3 percent were black, and 1 percent belonged to "other races." Most of the black recipients, furthermore, were in two states – Ohio and Pennsylvania (U.S. Children's Bureau 1933, 11-13).

Mothers' pension programs fell far short of their proponents' expectations. The problems inherent in the reliance on local funding and administration were aggravated by the Great Depression and led eventually to the drive for a federal grants-in-aid program.<sup>3</sup> Despite their limitations, however, these programs represented a dramatic change in the provision of relief to single mothers. Before mothers' pensions, single mothers could obtain aid from private charities or general poor relief. In general, though, the aid from these sources was even more meager than the aid available under mothers' pensions. A 1913 study conducted by the Massachusetts Commission on the Support of Dependent Minor Children of Widowed Mothers found that private charities typically provided grants of \$2 to \$3 per week (approximately \$4 to \$6 in 1920 dollars) regardless of the size of the family (Massachusetts 1913, 20). The New York Commission on Relief for Widowed Mothers found that in New York City in the same period the average *monthly* grant from charitable organizations was only \$2.49 (New York 1914, 566). Moreover, as discussed above, many charitable organizations encouraged women to place children in institutions or in foster care. Some even made such placements the prerequisite for aid.

Public poor relief was even less generous and less desirable. Many cities had abandoned outdoor relief by 1910. To receive aid, women, therefore, had to enter the almshouse or, again,

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<sup>3</sup> See Abbott (1934) for an example of how the case for a federal program was presented.

place their children in institutions. In cities such as Chicago which had not abandoned outdoor relief, single mothers were disproportionately represented on the relief rolls (Goodwin 1997, 76).

Mothers' pension legislation did lead to a large transfer of funds to single mother families. This transfer was not as large as many would have hoped, but it still resulted in a dramatic change in the distribution of public relief expenditures. As early as 1919, mothers' pensions accounted for over half of the relief expenditures of the largest cities. In 1920, total expenditure on mothers' pensions in New York State was \$2.8 million; total expenditure on all public relief programs in the state was \$4.3 million (Works Progress Administration 1937, 10 and 23).

### **Data and Methods**

The question to be addressed is: what was the relationship between state mothers' pension legislation and female headship in the early twentieth century? The basic strategy employed is to examine the determinants of female headship in 1910 – before the first state legislation was enacted – and in 1920 – after 40 states had enacted mothers' pension laws.

One methodology frequently used to examine the “treatment effects” of programs and policies is “difference-in-differences.” Most commonly, this takes the form of examining the difference in an outcome variable in states that enacted a particular policy and states that did not, both before and after the policy was enacted. If the policy had a treatment effect, the difference across the two groups of states after enactment would be larger than the difference before enactment. The rapid diffusion of mothers' pension legislation across the states makes the use of this type of test problematic, however. Only nine states and Washington, D.C. did not have mothers' pension legislation by 1920. With the exception of Rhode Island, all of these states were in the South. Comparing female headship rates in states with and without mothers' pension legislation by 1920 would amount to comparing the female headship rate in the South to that of the rest of the country. Moreover, given the narrow time frame in which states enacted mothers'



pension legislation, the more interesting issue would seem to be the relationship between the variation in female headship rates and the variation in the provisions of the state legislation. So rather than looking at the differences-in-differences across states with and without mothers' pensions legislation in 1920, the analysis is at first restricted to only states that had mothers' pension legislation in 1920 and examines the differences-in-differences across states with different types of legislative provisions.

Mothers' pension legislation had many different types of provisions. I focus on the four that I believe best capture the relative generosity of the state legislation: the eligibility of deserted and/or divorced mothers (DESDIV), the eligibility of unmarried mothers (UNMARR), the provision of state funds (STFUNDS), and the maximum grant for a family with three children (MAXBEN). Table 2 provides data on these provisions by state in 1919. All of the states that extended eligibility to unmarried mothers in 1919, also extended eligibility to deserted and divorced mothers. Five states did not have a legislated maximum benefit level in 1919: Colorado, Connecticut, Maine, Massachusetts, and New York. To account for this, two variables are used to capture the effects of the maximum benefit provisions. The first is an indicator variable equal to one if a state had a maximum benefit level (LIMIT). The second is an interaction between that indicator variable and the level of the maximum benefit (LIMIT\*MAXBEN).

The probability that a woman,  $i$ , living in state  $s$  is a female head (FHEAD = 1) is estimated using a probit model. The basic empirical specification is as follows:

$$\begin{aligned}
 (1) \text{ Probability (FHEAD}_{is} = 1) = & \Phi[\alpha + \beta_1 * \text{DESDIV}_s + \beta_2 * \text{UNMARR}_s + \beta_3 * \text{STFUNDS}_s \\
 & + \beta_4 * \text{LIMIT}_s + \beta_5 * \text{LIMIT}_s * \text{MAXBEN}_s \\
 & + \gamma_1 * \text{YR1920}_{is} * \text{DESDIV}_s + \gamma_2 * \text{YR1920}_{is} * \text{UNMARR}_s \\
 & + \gamma_3 * \text{YR1920}_{is} * \text{STFUNDS}_s + \gamma_4 * \text{YR1920}_{is} * \text{LIMIT}_s \\
 & + \gamma_5 * \text{YR1920}_{is} * \text{LIMIT}_s * \text{MAXBEN}_s + \delta * \text{YR1920}_{is} + x_{is}'\eta]
 \end{aligned}$$

where  $\Phi(\cdot)$  represents the normal cumulative distribution function. The coefficients on the interactions between the legislative provisions and the variable indicating the year 1920 (YR1920), the  $\gamma$ 's, represent the treatment effects. These coefficients capture the variation in the probability of female headship that was related to the provisions of state laws only *after* the laws were enacted. The hypothesis that more generous welfare provisions encouraged female headship implies that the probability of female headship should have been higher in states with more inclusive eligibility rules and states that provided state funding for mothers' pensions, and should have been positively related to the maximum benefit level. In other words, we would expect  $\gamma_1$ ,  $\gamma_2$ ,  $\gamma_3$ , and  $\gamma_5$  to be positive. The presence of a legislated maximum benefit most likely indicated less generosity than the absence of such a limit. Accordingly, we would expect  $\gamma_4$  to be negative.

The coefficients on the un-interacted legislative provisions, the  $\beta$ 's, capture the variation in the probability of female headship that was related to the provisions of state laws both before and after the laws were enacted. These coefficients will indicate if there was any correlation between the female headship in a state in 1910 and the provisions of the mothers' pension legislation that state enacted between 1910 and 1920. If states with higher rates of female headship in 1910 enacted more generous mothers' pension legislation, then  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_5$  would be positive and  $\beta_4$  would be negative. But the relationship could also go in the other direction: states with higher rates of female headship in 1910 may have enacted less generous mothers' pension programs.

The model described in equation (1) is not, however, complete. The discussion so far has ignored another dramatic legislative movement of the 1910s that may have also been related to female headship rates. Over the same period that states were enacting mothers' pension legislation, they were also enacting workers' compensation legislation. This legislation established guaranteed payments of benefits to workers injured on the job and the families of

workers killed in job-related accidents. Like mothers' pension laws, workers' compensation laws diffused rapidly across the states. Between 1910 and 1920, 40 states enacted workers' compensation legislation. Since workers' compensation guaranteed widows of men killed in industrial accidents a set level of benefits, these laws too could have been related to female headship rates. So also included among the law variables is a measure of the level of fatal benefits available under a state's workers' compensation program and its interaction with the year 1920 indicator variable. The measure used is the ratio of the present value of fatal benefits to annual earnings as found in Fishback and Kantor (2000, 209-210).

The data used in the analysis come from the 1910 and 1920 federal censuses available as part of the Integrated Public Use Microdata Series (IPUMS).<sup>4</sup> For both years, the IPUMS contains national random samples of households drawn from the census schedules. The 1910 dataset is a 1-in-250 sample of the population, and the 1920 dataset is a 1-in-100 sample of the population. The IPUMS also contains an oversample of blacks in the South from the 1910 census. I add this oversample to the national sample to increase the number of black observations for 1910.

I consider two definitions of female headship. The first I refer to as *family headship*: a woman is defined as being a female family head if she was living with an own child under the age of 16 and had no spouse present. This definition corresponds to that used in studies of female headship in the current period. It includes women who headed independent households as well as women who headed sub-families in larger households. For instance, a woman who lived with her children in the household of her brother or father would be designated as a female head by this definition. The living arrangements of single mother families, however, seems likely to also have been related to mothers' pension legislation. Today, the likelihood single mothers live in the households of their parents is negatively related to the level of welfare benefits (London 2000). The likelihood a single mother family lived as a sub-family in the household of relatives in the

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<sup>4</sup> Information on the IPUMS data is available online at: <http://www.ipums.umn.edu>.

early twentieth century may likewise have been correlated with the availability and generosity of mothers' pensions. So I also examine what I refer to as *household headship*: a woman is defined as a household head if she is living with an own child under the age of 16, had no spouse present, and was not living in a household with a male adult relative.<sup>5</sup>

I limit the sample to women between the ages of 20 and 44. The control variables included in the estimated models are similar to those used by Moffitt (1994). The personal characteristic variables include a woman's age and her age-squared and indicators for whether she was illiterate or foreign-born. Like Moffitt, I also include variables capturing the sectoral distribution of employment in the state of residence.<sup>6</sup> The distribution of employment in a state likely was related to the labor market opportunities of women. Moreover, it may have been related to the political climate in the state and hence, also influenced the type of mothers' pension legislation enacted. I also include indicator variables for census region and size of place.

I estimate separate models for black and white women. I also estimate the model using both the full sample and the sample of women living in large urban centers (population 25,000 +) since many rural counties did not establish mothers' pension programs.

Table 3 presents the means and standard deviations of the variables used in the analysis. The rate of female headship among whites was very low and remained constant between 1910 and 1920. Only 3.5 percent of white women were female family heads and only 2 percent female household heads in both years. Female headship was more prevalent among black women, but the levels were still low. In 1910, 9 percent of black women were family heads and 6 percent were household heads. Black female headship fell between 1910 and 1920. By 1920, only 7 percent of black women were family heads and only 4 percent were household heads.

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<sup>5</sup> This definition allows women who were living as boarders or employees to be defined as female heads.

<sup>6</sup> These data come from U.S. Bureau of the Census (1914) and (1923).

## Results

Before turning to the difference-in-difference analysis, it is instructive to examine the relationship between the provisions of mothers' pension legislation and female headship using just the 1920 data. This will allow for a more complete comparison with the literature on female headship in the current period. Table 4 presents the estimated marginal effects from cross-section probit models. For a continuous variable such as the maximum benefit level, the marginal effect represents the derivative of the probit function with respect to that variable. For a binary variable such as the variable indicating that a state provided state funds for mothers' pension programs, the marginal effect is the change in the probability resulting from the discrete change in the variable from 0 to 1.

The data in Table 4 indicate only a weak association between the relative generosity of a state's mothers' pension legislation and white female headship in 1920. In all four white specifications, the effect of the maximum benefit indicator variable is negative and the effect of the maximum benefit level and indicator interaction is positive. These effects are rather imprecisely estimated, however. The strongest evidence of welfare effects comes from the specification for family headship in large urban areas. The effect of the maximum benefit indicator variable does not quite achieve statistical significance but the point estimate indicates a sizable effect. In contrast, the effect of the indicator-level interaction variable is significant at a 10 percent level but the size of the effect is relatively small. None of the other mothers' pension law provisions appear to have been related to the prevalence of white female headship in 1920. The effects of both the eligibility of unmarried mothers and the provision of state funds are even the unexpected sign.

The results of the specifications for black women are even less supportive of the notion of welfare effects. The only statistically significant effect is that of the eligibility of unmarried women in the urban family head specification. But the effect is negative indicating that black female headship was actually lower in states that extended eligibility to unmarried mothers.

One interesting result that emerges from Table 4 is that female headship was negatively related to the level of workers' compensation fatal benefits. States that paid higher fatal benefits had lower rates of female headship.

Table 5 presents the marginal effects from the difference-in-difference probit models. The models for whites show a somewhat complicated relationship between the legislative provisions and female headship. The effects of the un-interacted provision variables do indicate that the provisions enacted were related to the rate of white female headship in 1910. But while some of the estimated effects indicate that higher rates of female headship led to more generous mothers' pension legislation, others indicate that higher rates of female headship led to less generous mothers' pension legislation. The evidence supporting the "more generous" hypothesis comes from the effects of the eligibility of deserted and divorced women and the maximum benefit variables. White female family headship in urban areas was 1.3 percentage points higher in 1910 in states which would extend eligibility to deserted and divorced mothers than in states would not, holding all other things constant. White female household headship was 0.6 percentage points lower in states that would enact maximum benefit provisions than in states that would not. The effects of the eligibility of unmarried mothers and the provision of state funds support the "less generous" hypothesis. Among white women in urban areas, both family and household headship were substantially lower in 1910 in states that would go on to extend eligibility to unmarried mothers by 1920. Family headship overall was lower in states that would enact legislation containing the provision of state funds.

Table 5 also reveals that there were "treatment" effects of mothers' pension legislation on white female headship. But these effects, too, do not fit the expected pattern. The effect of the interaction between the year 1920 indicator variable and the eligibility of unmarried mothers is positive in both the family and household head specifications for the urban sample. This indicates that white female headship increased more between 1910 and 1920 in states that extended eligibility to unmarried mothers than in states that did not. But the effect on family

headship in the urban sample of the interaction of the year 1920 variable and the eligibility of the deserted and divorced mothers was negative. Family headship in urban areas apparently declined more in the states that extended coverage to deserted and divorced women than in other states, holding all other factors constant.

The effects of the legislative provisions and their interactions with the year 1920 variable are best interpreted in combination rather than isolation, however. It is also important to keep in mind that the states that extended eligibility to unmarried mothers were a subset of the states that extended eligibility to deserted and divorced women. Taken as a whole, the results for whites in Table 5 seem to tell the following story. States with high rates of white female headship in 1910 would go on to enact legislation that covered deserted and divorced mothers as well as widowed mothers. So there was a positive relationship between the rate of white female headship and the relative generosity of a state's mothers' pension legislation. But the relationship between female headship and the relative generosity of enacted legislation was not monotonic. The states that would go on to enact the most inclusive mothers' pension legislation, covering unmarried mothers as well as deserted and divorced mothers, did not have the highest rates of female headship in 1910. Rather, female headship in these states was about the same as in the states that would extend coverage to only widows. Between 1910 and 1920, white female headship increased in the states with the most inclusive mothers' pension legislation relative to other states. This suggests that the most generous mothers' pension laws did induce more white female headship.

The results for black women are very different. Black female headship in 1910 and 1920 was, for the most part, unrelated to the provisions of mothers' pension legislation. Black female headship appears not to have influenced, or to have been influenced by, the relative generosity of mothers' pension laws.

Table 5 again shows a negative relationship between workers' compensation fatal benefits and female headship. This relationship, however, shows up in the effect of the un-

interacted variable. Female headship in 1910 was lower in the states that would enact higher fatal benefits between 1910 and 1920.

The lack of a relationship between black female headship and the relative generosity of state mothers' pension legislation is consistent with the findings of Moffitt (1994) and Hoynes (1997) for the current period. Today, while white female headship is highest in the states with the highest welfare benefits, black female headship is not. But to understand the relationship between black female headship and mothers' pension legislation, it is important to consider the states that did not enact mothers' pensions before 1920. As noted above, these states, with the exception of Rhode Island, were in the South and had sizable black populations. How was black female headship related to the whether or not a state enacted mothers' pension legislation?

Table 6 presents of results of a more standard difference-in-difference specification using data for only the Southern states. The variables of interest are an indicator for whether a state enacted any mothers' pension legislation between 1910 and 1920 and the interaction of that variable with the indicator for the year 1920. White female headship was unrelated to both variables. But black female headship was negatively related to the un-interacted variable. The Southern states that did not enact mothers' pension legislation between 1910 and 1920 were those with the highest rates of black female headship.

To examine the relationship between the timing of enactment and white and black female headship more carefully, I estimated linear probability models with state fixed effects for family headship in 1910. Figure 1 shows the scatter plot of the predicted level of white female family headship and the year of enactment of mothers' pension legislation. This figure provides some insight into the "atypical" diffusion of these laws across the states. Some of the states that enacted mothers' pensions laws "too early" were states that had fairly high rates of white female headship. The two states with the highest white female headship rates in 1910 were Nevada and Arizona – two of the states that enacted mothers' pension legislation too early. Tennessee and



Utah, also early enactors, were ranked fifth and sixth, respectively. But Figure 1 also shows that many of the early enactors had relatively low rates of white female headship in 1910.

Figure 2 presents the scatter plot of the predicted level of black female family headship and the year of enactment for Southern states with a black population share of at least 20 percent. This plot illustrates the inference made from the data in Table 6: the speed of enactment for Southern states was negatively related to their rates of black female headship.

## **Discussion**

Do these results help us interpret the state fixed effects found in empirical models of female headship in the current period? I believe they at least provide some insight. The results indicate, for instance, that mothers' pensions – the first public assistance programs targeted to single mothers – was not responsive to the experiences of black women. The lack of a relationship between the state fixed effects for blacks and the generosity of state welfare benefits today perhaps is the legacy of this. The results for whites, however, seem to support two interpretations of state fixed effects. For some states, the early enactment of mothers' pension legislation and the relatively generous provisions of this legislation was due to the relatively high levels of female headship that existed in 1910. The "state fixed effects" existed before relative welfare generosity. But in other states, relative welfare generosity preceded relatively high rates of female headship. Disentangling these stories will require a more thorough examination of the evolution of the variation in welfare generosity and female headship across the states.

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Table 1.—Year of Enactment of Mothers' Pension Legislation

1911	<i>Illinois</i>	1916	Maryland
1913	California	1917	Arkansas
	Colorado		Delaware
	<i>Idaho</i>		Maine
	<i>Iowa</i>		Missouri <sup>a</sup>
	Massachusetts		Texas
	Michigan		Vermont
	Minnesota	1918	Virginia
	<i>Nebraska</i>	1919	Connecticut
	<i>New Hampshire</i>		Florida
	New Jersey		Indiana
	<i>Nevada</i>	1920	Louisiana
	Ohio	1923	North Carolina
	Oregon		Rhode Island
	Pennsylvania	1926	Washington, D.C.
	<i>South Dakota</i>	1928	Kentucky
	<i>Utah</i>		Mississippi
	Washington	1931	Alabama
1914	<i>Arizona</i>		New Mexico
1915	Kansas	1937	Georgia
	<i>Montana</i>		South Carolina
	New York		
	North Dakota		
	<i>Oklahoma</i>		
	<i>Tennessee</i>		
	<i>West Virginia</i>		
	<i>Wyoming</i>		

Notes: State which enacted legislation earlier than predicted by Jackson (1969 and 1971) are italicized.

<sup>a</sup> Missouri enacted mothers' pension legislation for Jackson County (Kansas City) in 1911 and for St. Louis in 1912 but did not enact statewide legislation until 1917.

Table 2.—Provisions of State Mothers' Pension Laws, 1919

	Eligible mothers include:		State funds	Maximum monthly grant family with 3 children
	Deserted/divorced	Unmarried		
Arizona				45
Arkansas	X			20
California			X	30
Colorado	X	X		No maximum
Connecticut			X	No maximum
Delaware	X		X	19
Florida	X			41
Idaho				20
Illinois				45
Indiana	X	X		54
Iowa				27
Kansas	X			25
Maine	X	X	X	No maximum
Maryland				28
Massachusetts	X	X	X	No maximum
Michigan	X	X		40.50
Minnesota	X		X	35
Missouri <sup>a</sup>	X			40
Montana				30
Nebraska	X	X		30
Nevada	X			55
New Hampshire	X	X	X	20
New Jersey				18
New York				No maximum
North Dakota	X	X		45
Ohio	X			29
Oklahoma				20
Oregon				25
Pennsylvania			X	40
South Dakota	X			29
Tennessee				20
Texas				22
Utah				40
Vermont	X		X	27
Virginia				22
Washington	X	X		25
West Virginia	X			20
Wisconsin	X	X	X	35
Wyoming	X			40

<sup>a</sup>The mothers' pensions programs in Jackson County (Kansas City) and St. Louis operated under separate legislation. In both jurisdictions, divorced, deserted, and unmarried mothers were not eligible for grants. The maximum grant for a family with 3 children was \$20 in Jackson County and \$47.25 in St. Louis.

Table 3.—Descriptive Statistics

	1910		1920	
	Full sample	Urban	Full sample	Urban
<b>Whites</b>				
Female head – family	0.034 (0.180)	0.034 (0.180)	0.034 (0.180)	0.035 (0.184)
Female head – household	0.018 (0.134)	0.020 (0.139)	0.018 (0.134)	0.020 (0.142)
Provisions of state laws:				
Deserted/divorced mothers	0.397 (0.489)	0.315 (0.465)	0.387 (0.487)	0.334 (0.471)
Unmarried mothers	0.219 (0.414)	0.205 (0.404)	0.217 (0.412)	0.210 (0.407)
Maximum benefit –indicator	0.772 (0.420)	0.624 (0.484)	0.782 (0.413)	0.669 (0.470)
Maximum benefit –indicator*level	25.408 (16.402)	21.635 (18.399)	25.334 (16.015)	22.778 (17.874)
State funds	0.286 (0.452)	0.317 (0.465)	0.281 (0.450)	0.296 (0.456)
Workers' comp. fatal benefits	3.361 (1.711)	3.795 (1.812)	3.355 (1.706)	3.713 (1.777)
Age	30.725 (7.106)	30.528 (7.049)	31.012 (7.013)	30.888 (6.923)
Illiterate	0.045 (0.208)	0.057 (0.231)	0.041 (0.199)	0.051 (0.219)
Foreign-born	0.219 (0.413)	0.345 (0.475)	0.196 (0.397)	0.290 (0.454)
% of labor force in agricultural occupations	0.259 (0.165)	0.184 (0.125)	0.215 (0.148)	0.158 (0.115)
% of labor force in manufacturing	0.316 (0.110)	0.360 (0.091)	0.332 (0.109)	0.367 (0.091)
% of labor force in service sector	0.191 (0.038)	0.199 (0.030)	0.183 (0.035)	0.185 (0.029)
Midwest	0.397 (0.489)	0.328 (0.470)	0.397 (0.489)	0.359 (0.480)
South	0.151 (0.358)	0.062 (0.242)	0.155 (0.362)	0.081 (0.273)
West	0.082 (0.275)	0.080 (0.272)	0.098 (0.298)	0.091 (0.287)
Urban 2,500 to 24,999	0.174 (0.379)		0.172 (0.377)	
Urban 25,000 +	0.401 (0.490)		0.449 (0.497)	
Number of observations	48,722	19,559	154,853	69,531

Table 3.-- *Continued*

	1910		1920	
	Full sample	Urban	Full sample	Urban
<u>Blacks</u>				
Female head -- family	0.093 (0.291)	0.082 (0.275)	0.069 (0.253)	0.061 (0.240)
Female head -- household	0.057 (0.231)	0.053 (0.225)	0.043 (0.203)	0.041 (0.198)
Provisions of state laws:				
Deserted/divorced mothers	0.268 (0.443)	0.188 (0.391)	0.297 (0.457)	0.256 (0.436)
Unmarried mothers	0.032 (0.175)	0.069 (0.254)	0.056 (0.230)	0.098 (0.297)
Maximum benefit --indicator	0.944 (0.230)	0.849 (0.358)	0.923 (0.267)	0.854 (0.353)
Maximum benefit --indicator*level	24.699 (10.454)	25.033 (14.153)	25.604 (11.923)	26.920 (14.820)
State funds	0.078 (0.268)	0.177 (0.382)	0.106 (0.308)	0.172 (0.377)
Workmen's compensation fatal benefits	2.368 (1.597)	2.901 (1.607)	2.505 (1.685)	2.979 (1.670)
Age	29.827 (6.826)	29.961 (6.787)	30.449 (6.907)	30.603 (6.781)
Illiterate	0.200 (0.400)	0.111 (0.315)	0.117 (0.322)	0.067 (0.250)
% of labor force in agricultural occupations	0.441 (0.187)	0.324 (0.193)	0.320 (0.178)	0.234 (0.154)
% of labor force in manufacturing	0.213 (0.105)	0.277 (0.116)	0.266 (0.110)	0.319 (0.104)
% of labor force in service sector	0.170 (0.040)	0.189 (0.036)	0.180 (0.038)	0.186 (0.030)
Midwest	0.110 (0.313)	0.191 (0.393)	0.188 (0.391)	0.299 (0.458)
South	0.759 (0.428)	0.505 (0.500)	0.620 (0.485)	0.381 (0.486)
West	0.010 (0.098)	0.014 (0.117)	0.017 (0.128)	0.023 (0.151)
Urban 2,500 to 24,999	0.141 (0.348)		0.121 (0.326)	
Urban 25,000 +	0.330 (0.470)		0.475 (0.499)	
Number of observations	4,998	1,546	9,776	4,643

Table 4.—Estimated Marginal Effects from Probit Models of Female Headship,  
1920 Cross-Sections

	Female headship-- family		Female headship--hhold	
	Full sample	Urban	Full sample	Urban
<u>Whites</u>				
Provisions of state laws:				
Deserted/divorced mothers	4.36E-5 (1.62E-3)	0.0043 (0.0032)	-3.93E-4 (1.08E-3)	1.16E-4 (2.16E-3)
Unmarried mothers	-0.0016 (0.0017)	-0.0023 (0.0030)	-0.0016 (0.0011)	-0.0018 (0.0021)
Maximum benefit –indicator	-0.0045 (0.0031)	-0.0078 (0.0051)	-0.0036 (0.0022)	-0.0050 (0.0037)
Maximum benefit –indicator*level	8.37E-5 (7.21E-5)	2.23E-4 (1.35E-4)	5.43E-5 (4.84E-5)	5.99E-5 (9.45E-5)
State funds	-0.0008 (0.0013)	-0.0026 (0.0021)	-0.0008 (0.0009)	-0.0006 (0.0015)
Workers' comp. fatal benefits	-0.0011 (0.0003)	-0.0021 (0.0006)	-0.0006 (0.0002)	-0.0008 (0.0004)
Age	0.0063 (0.0006)	0.0090 (0.0010)	0.0075 (0.0005)	0.0087 (0.0007)
Age-squared	-7.39E-5 (1.00E-5)	-1.10E-4 (1.54E-5)	-9.62E-5 (7.01E-6)	-1.13E-4 (1.12E-5)
Illiterate	0.0030 (0.0024)	0.0047 (0.0034)	0.0024 (0.0016)	0.0058 (0.0025)
Foreign-born	-0.0025 (0.0012)	-0.0056 (0.0015)	0.0022 (0.0008)	0.0006 (0.0011)
% of labor force in agricultural occupations	0.0069 (0.0191)	-0.0390 (0.0318)	0.0195 (0.0126)	0.0043 (0.0221)
% of labor force in manufacturing	-0.0005 (0.0234)	-0.0622 (0.0388)	0.0126 (0.0156)	-0.0038 (0.0271)
% of labor force in service sector	0.0211 (0.0291)	-0.0477 (0.0560)	0.0309 (0.0194)	0.0183 (0.0384)
Midwest	-0.0041 (0.0023)	-0.0097 (0.0040)	-0.0011 (0.0016)	0.0006 (0.0030)
South	0.0044 (0.0027)	0.0024 (0.0044)	0.0016 (0.0018)	0.0070 (0.0038)
West	0.0081 (0.0027)	0.0067 (0.0042)	0.0083 (0.0021)	0.0109 (0.0037)
Urban 2,500 to 24,999	0.0077 (0.0015)		0.0062 (0.0011)	
Urban 25,000 +	0.0068 (0.0011)		0.0063 (0.0008)	
Predicted probability at sample means	0.0314	0.0320	0.0149	0.0167
Log likelihood	-22,365.01	-10,316.16	-13,612.72	-6,667.84



Table 4.—Continued

	Female headship-- family		Female headship--hhold	
	Full sample	Urban	Full sample	Urban
<u>Blacks</u>				
Provisions of state laws:				
Deserted/divorced mothers	-0.0039 (0.0085)	0.0018 (0.0127)	-0.0009 (0.0069)	0.0003 (0.0105)
Unmarried mothers	-0.0175 (0.0128)	-0.0264 (0.0121)	0.0026 (0.0130)	-0.0068 (0.0125)
Maximum benefit --indicator	-0.0077 (0.0240)	-0.0156 (0.0305)	-0.0119 (0.0212)	-0.0092 (0.0246)
Maximum benefit --indicator*level	-1.47E-4 (4.46E-4)	2.71E-4 (6.00E-4)	6.73E-5 (3.51E-4)	1.44E-4 (4.95E-4)
State funds	-0.0051 (0.0132)	-0.0097 (0.0147)	-0.0012 (0.0105)	-0.0079 (0.0114)
Workers' comp. fatal benefits	-0.0034 (0.0022)	-0.0045 (0.0030)	-0.0035 (0.0017)	-0.0036 (0.0024)
Age	0.0077 (0.0037)	0.0054 (0.0051)	0.0116 (0.0030)	0.0103 (0.0043)
Age-squared	-9.06E-5 (5.84E-5)	-4.85E-5 (8.05E-5)	-1.60E-4 (4.70E-5)	-1.41E-4 (6.73E-5)
Illiterate	0.0135 (0.0083)	-0.0010 (0.0130)	0.0039 (0.0063)	-0.0119 (0.0090)
% of labor force in agricultural occupations	-0.0523 (0.1316)	0.0441 (0.1716)	-0.1283 (0.1044)	-0.0111 (0.1402)
% of labor force in manufacturing	-0.0190 (0.1756)	0.0807 (0.2281)	-0.1633 (0.1411)	0.0095 (0.1889)
% of labor force in service sector	-0.1378 (0.1718)	-0.2942 (0.2837)	-0.1497 (0.1352)	-0.1646 (0.2267)
Midwest	0.0111 (0.0178)	-0.0085 (0.0191)	-0.0109 (0.0116)	-0.0188 (0.0137)
South	0.0354 (0.0148)	0.0211 (0.0211)	0.0214 (0.0116)	0.0121 (0.0167)
West	0.0438 (0.0359)	0.0680 (0.0500)	0.0190 (0.0254)	0.0395 (0.0394)
Urban 2,500 to 24,999	0.0147 (0.0090)		0.0197 (0.0079)	
Urban 25,000 +	0.0026 (0.0063)		0.0092 (0.0050)	
Predicted probability at sample means	0.0657	0.0573	0.0400	0.0375
Log likelihood	-2,404.98	-1,045.58	-1,703.15	-771.77

Table 5.—Estimated Marginal Effects from Probit Models of Female Headship,  
Pooled 1910 & 1920

	Female headship-- family		Female headship--hhold	
	Full sample	Urban	Full sample	Urban
<u>Whites</u>				
Provisions of state laws:				
Deserted/divorced mothers	-0.0004 (0.0023)	0.0133 (0.0050)	-9.23E-5 (1.56E-3)	0.0032 (0.0033)
Unmarried mothers	-0.0012 (0.0028)	-0.0152 (0.0040)	-0.0014 (0.0018)	-0.0079 (0.0028)
Maximum benefit –indicator	-0.0049 (0.0046)	-0.0072 (0.0077)	-0.0063 (0.0034)	-0.0072 (0.0058)
Maximum benefit –indicator*level	1.41E-4 (1.04E-4)	1.89E-4 (1.97E-4)	1.36E-4 (6.92E-5)	1.22E-4 (1.37E-4)
State funds	-0.0042 (0.0019)	-0.0029 (0.0032)	-0.0013 (0.0013)	0.0010 (0.0023)
Workers' comp. fatal benefits	-0.0012 (0.0006)	-0.0014 (0.0010)	-0.0003 (0.0004)	-0.0007 (0.0007)
(Year 1920)* (Deserted/divorced mothers)	9.59E-5 (0.0025)	-0.0084 (0.0041)	-0.0004 (0.0017)	-0.0025 (0.0030)
(Year 1920)* (Unmarried mothers)	-0.0009 (0.0031)	0.0163 (0.0073)	-0.0005 (0.0021)	0.0079 (0.0051)
(Year 1920)* (Max. benefit –indicator)	-0.0011 (0.0046)	-0.0017 (0.0076)	0.0009 (0.0030)	0.0017 (0.0053)
(Year 1920)* (Max. benefit –ind.*level)	-2.00E-5 (1.06E-4)	6.23E-5 (1.87E-4)	-4.73E-5 (7.01E-5)	-2.57E-5 (1.31E-4)
(Year 1920)* (State funds)	0.0036 (0.0022)	1.22E-4 (3.39E-3)	0.0011 (0.0014)	-0.0012 (0.0023)
(Year 1920)* (Workers' comp. benefits)	2.22E-4 (6.32E-4)	-4.87E-4 (1.12E-3)	-1.93E-4 (4.15E-4)	-5.03E-5 (7.74E-4)
Year 1920	-0.0002 (0.0041)	0.0014 (0.0070)	0.0015 (0.0026)	-0.0003 (0.0050)
Predicted probability at sample means	0.0311	0.0312	0.0145	0.0160
Log likelihood	-29,342.02	-13,069.33	-17,820.05	-8,455.50

Table 5.—Continued

	Female headship-- family		Female headship--hhold	
	Full sample	Urban	Full sample	Urban
<u>Blacks</u>				
Provisions of state laws:				
Divorced and/or deserted mothers	-0.0181 (0.0116)	-0.0109 (0.0203)	0.0012 (0.0099)	-0.0058 (0.0170)
Unmarried mothers	0.0171 (0.0323)	0.0447 (0.0465)	-0.0145 (0.0191)	-0.0128 (0.0255)
Maximum benefit –indicator	-0.0161 (0.0354)	0.0404 (0.0261)	0.0025 (0.0238)	0.0301 (0.0194)
Maximum benefit –indicator*level	3.43E-4 (5.81E-4)	-6.98E-4 (8.88E-4)	2.17E-4 (4.56E-4)	-3.68E-4 (7.61E-4)
State funds	-0.0052 (0.0194)	0.0123 (0.0250)	0.0082 (0.0171)	0.0199 (0.0230)
Workers' comp. fatal benefits	-0.0020 (0.0036)	0.0034 (0.0059)	-0.0022 (0.0028)	-0.0016 (0.0049)
(Year 1920)*(Deserted/divorced mothers)	0.0144 (0.0158)	0.0090 (0.0259)	-0.0016 (0.0111)	0.0059 (0.0218)
(Year 1920)*(Unmarried mothers)	-0.0313 (0.0214)	-0.0492 (0.0160)	0.0258 (0.0391)	0.0063 (0.0387)
(Year 1920)*(Max. benefit –indicator)	0.0024 (0.0319)	-0.0724 (0.0546)	-0.0120 (0.0266)	-0.0550 (0.0483)
(Year 1920)*(Max. benefit –ind.*level)	-2.56E-4 (6.04E-4)	7.07E-4 (8.71E-4)	-8.52E-5 (4.73E-4)	5.07E-4 (7.41E-4)
(Year 1920)*(State funds)	0.0024 (0.0212)	-0.0195 (0.0184)	-0.0093 (0.0131)	-0.0216 (0.0120)
(Year 1920)*(Workers' comp. benefits)	-0.0007 (0.0041)	-0.0086 (0.0065)	-0.0011 (0.0032)	-0.0022 (0.0054)
Year 1920	-0.0167 (0.0358)	0.0454 (0.0334)	0.0031 (0.0266)	0.0238 (0.0300)
Predicted probability at sample means	0.0738	0.0635	0.0440	0.0411
Log likelihood	-3,950.38	-1,496.88	-2,773.21	-1,101.80

Table 6.—Estimated Marginal Effects from Probit Models of Female Headship:  
Difference-in-Differences Model, Southern States

	Whites		Blacks	
	family head	hhold head	family head	hhold head
State mothers' pension law	-0.0009	0.0019	-0.0133	-0.0095
	(0.0033)	(0.0020)	(0.0059)	(0.0047)
(Year 1920)*(State mothers' pension law)	0.0015	0.0004	0.0047	0.0036
	(0.0038)	(0.0023)	(0.0078)	(0.0062)
Year 1920	-0.0050	-0.0018	-0.0217	-0.0097
	(0.0031)	(0.0019)	(0.0053)	(0.0041)
Predicted probability at sample means	0.0373	0.0155	0.0939	0.0570
Log likelihood	-8,949.38	-5,025.49	-8,192.59	-5,886.50

Figure 1.—Correlation of White Female Headship in 1910 and Timing of Enactment of Mothers' Pension

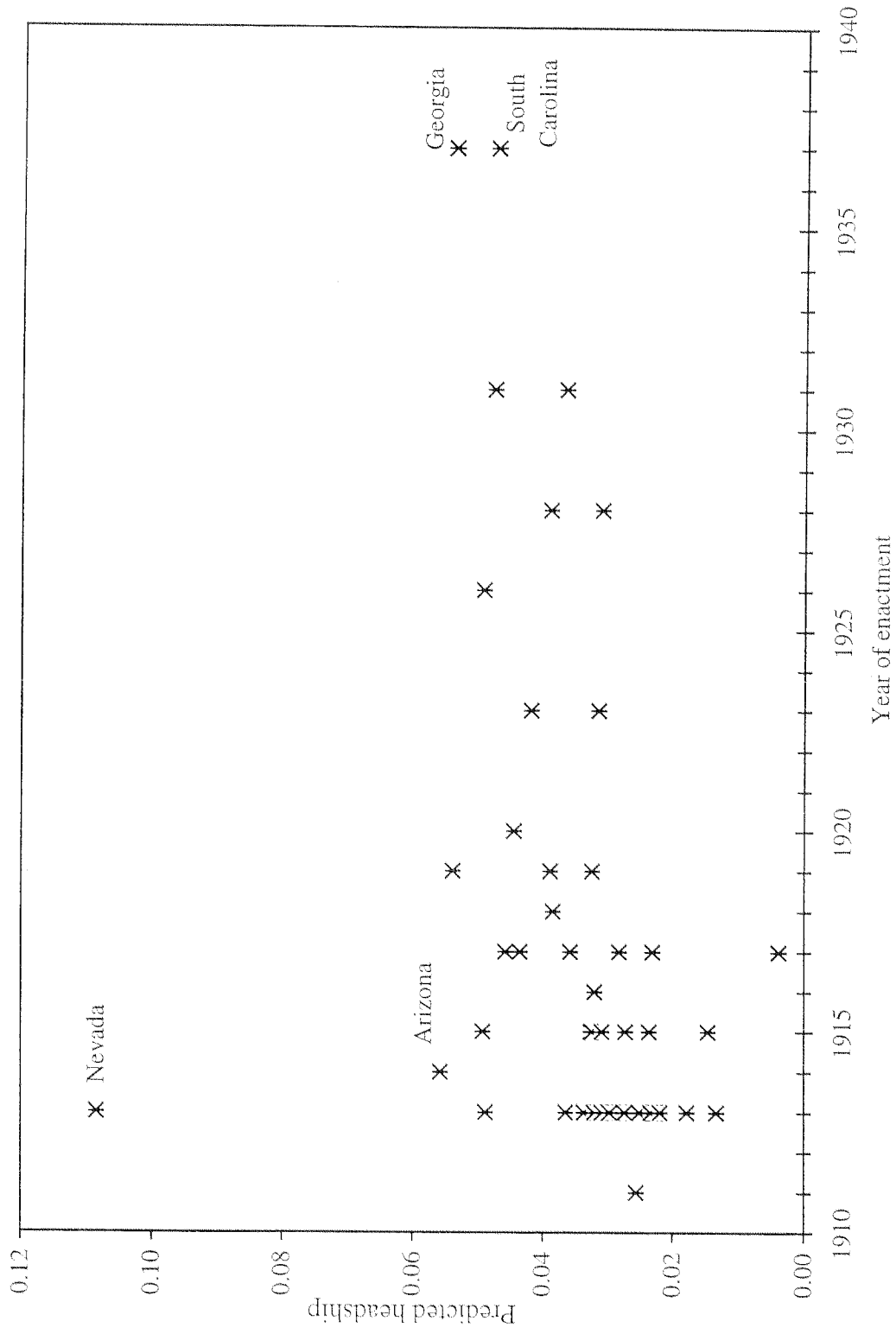


Figure 2.—Correlation of Black Female Headship in 1910 and Timing of Enactment of Mothers' Pension, Southern States with Black Population Share  $\geq 0.20$

