Going Postal: What Black Employment in the Postal Service Reveals About the Increasing Cost of Racial Segregation, 1940-2000

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Abstract: Although economists largely agree that residential segregation has been harmful to African-American employment and earnings in recent decades, there is much less consensus about why this relationship emerged. This paper examines the association between segregation and the relative employment of black workers at the U.S. Postal Service, a large-scale employer with facilities in every city in the United States. Relative to whites, black employment at the post office is an increasing function of segregation, but only after 1970. Postal facilities have remained concentrated in downtown areas, near black enclaves, even as other firms suburbanized. We argue that this pattern is consistent with explanations of "bad" ghettos that emphasize physical isolation, or spatial mismatch, rather than social isolation.

I. Introduction

In 1900, approximately 90 percent of the African-American population lived in the South, the vast majority in rural areas. Beginning during World War I and accelerating in the Second World War, many African-Americans left the rural South for the nation's cities. As blacks arrived in urban areas, they did not disperse uniformly through the urban landscape; rather, they concentrated in specific neighborhoods or "ghettos." From 1890 to 1970, racial residential segregation in metropolitan areas increased by around 75 percent (Cutler, Glaeser, and Vigdor 1999). Since 1970, segregation has declined in absolute terms but remains far higher in 2000 than a century earlier.

Prevailing wisdom about the relationship between residential segregation and black economic advancement changed dramatically over time. In the first half of the century, scholars like W.E.B. Dubois, E. Franklin Frazier, Gunnar Myrdal and Carter Woodson argued that the ghetto provided a protected market for African-American ministers, beauticians and funeral parlor directors who served an overwhelmingly black clientele, thereby providing the foundation for the emergence of a black middle class. However, in recent years, the apparent isolation of majority-black neighborhoods – physically from job opportunities; culturally from dominant social norms; and politically from local public goods and amenities – has been blamed for the persistence of black poverty (Massey and Denton, 1993). This shift in the scholarship is consistent with a changing empirical association between economic outcomes and residence in a segregated city for African-Americans (Collins and Margo, 2000). In 1940, blacks in segregated cities enjoyed higher annual earnings and stronger labor force attachment but by the 1970s, they had fallen behind their counterparts in integrated areas.

Why did the economic benefit of segregation turn into a cost over the course of the century? Majority-black neighborhoods at mid-century differed from black ghettos of today along two key dimensions. First, because black households, regardless of class, were almost universally excluded from white neighborhoods during the first half of the twentieth century black areas were commonly integrated by income. As housing restrictions eased in the 1960s, middle class blacks left African-American enclaves, leaving the remaining population with fewer positive role models or employment contacts (Wilson, 1987). At approximately the same time, many firms were relocating to the urban periphery (Glaeser and Kahn, 2001). With ghettos rooted in the center city and new jobs increasingly situated in the suburban ring, the geographic distance between majority-black neighborhoods and employment opportunities expanded.

Because physical and social isolation tend to rise in tandem, disentangling these two channels is challenging and has not often been attempted (Ihlanfeldt and Sjoquist, 1998). In this paper, we take a novel approach to understand the mechanism by which residential isolation, once neutral or even beneficial, became an impediment to black economic advancement circa 1970.[1] Our approach focuses on employment in a single organization – the United States Postal Service.

While the locations of branch post offices follow residential patterns, and thus had become highly suburbanized by the 1970s, the majority of postal employees work at centralized processing and distribution centers. The sites for these facilities were established

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[1] Two previous attempts to assess the relative importance of concentrated poverty and spatial mismatch are inconclusive. Weinberg (2000) finds that black centralization – the share of blacks who live in the center city, and thus presumably at a distance from suburban employers – has a stronger negative effect on black employment rates than does neighborhood segregation *per se*. Taking a different approach, Cutler and Glaeser (1997) find that neither proxies for neighborhood-level human capital nor for distance from employment can explain a large share of the observed segregation penalty.

earlier in the century based on proximity to rail terminals, and thus tend to be located in central cities close to majority-black neighborhoods. Even as similar private sector warehousing and wholesale operations moved to the suburbs to take advantage of cheap land and truck-based distribution, a disproportionate share of postal employment remained "downtown."

In addition, whether judged on wages, benefits, job security, or working conditions, the post office was a "good job," particularly for African-Americans. A national wage scale for postal work prevailed, one that contained no stated provision for differences by race. Even adjusting for observable differences in human capital and comparing within occupation, black male postal workers earned a substantial (10-40 percent) wage premium relative to their private sector counterparts over this period.

Taken together, the fact that postal jobs are well-paid positions disproportionately located in central cities suggests a testable distinction between the role model and spatial mismatch views of segregation. If the main cause of ghetto decline is the loss of middle class role models, we should observe a positive association between segregation and black employment in the post office in the 1940s and 1950s, *which then diminishes over the course of the century*. Alternatively, if the main cause of decline is the increasing distance between black enclaves and private sector job vacancies, we should observe a positive association between segregation and black employment in the post office *only after the general decentralization of employment – say, from 1970 onward*. Higher commuting costs associated with private sector work should augment the relative appeal of a nearby postal job.

Employment in the USPS can be consistently identified in the Census from 1900 onward; the same is <u>not</u> true, for example, of employment in state or local government.

Unlike most industries, the USPS has facilities in every metropolitan area, and, by 1970, it employed 1.2 percent of all white men and 2.5 percent of all black men in the labor force.

We find a time pattern consistent with the importance of spatial mismatch. There is no association in 1940 or 1950 between urban segregation and the probability that a black worker was employed at the post office (relative to a similar white worker in his or her metropolitan area). In 1970, a large positive association between black postal employment and segregation emerges. While this association decreases in magnitude over the next three decades, it is still present in 2000.

To bolster our reading of the evidence, we consider two alternative explanations for such a positive relationship between segregation and black postal employment. First, a city's level of segregation may be correlated with unobserved measures of local racism. If the post office is uniformly color-blind nationwide, while private sector employers in segregated areas are disproportionately unwilling to hire black employees, postal employment in segregated areas could reflect a dearth of outside options. To explore this possibility, we separate postal employees into two categories: mail carriers and all other occupations, most of whom are clerks. We have no reason to believe that the USPS is differentially color-blind across occupational categories. However, the distribution of job locations between the center city and suburban ring for these two groups differs enormously. Clerks are twice as likely as either mail carriers or private sector workers to be employed in the central business district (18 percent vs. 6 and 8 percent, respectively). Correspondingly, we find that, for blacks workers, segregation is only associated with the probability of working as a postal clerk. Segregation is also unrelated to the probability of being employed in the rest of the public sector, whose distribution of job locations matches that of the private sector.

Secondly, we consider the possibility that employment in the post office is a patronage position influenced by the structure of local government. If political representation is "neighborhood" or "district" based – as is the case in many American cities – segregation may intensify black political clout (Aghion, Alesina and Trebbi, 2004). Although postal employment has long been governed by civil service rules, there is anecdotal evidence that politicians used to intervene in the hiring process. However, the Postal Reorganization Act of 1970 greatly limited discretionary hiring, suggesting that, if anything, we should find a stronger relationship between segregation and postal employment before 1970.

In addition, if political forces are at work, we would expect to see sharp differences in the effects of segregation between northern and southern metropolitan areas before 1970. Blacks could (and did) vote in the North, while their access to the ballot box was severely restricted in the South. Yet, we find no regional gap in the segregation effect in 1940, and a small, and statistically insignificant gap in 1950.

The rest of the paper is organized as follows. In the next section, we present the pattern of employment in the post office and the postal wage premium by race over the twentieth century. We also document the location of postal jobs by occupation compared to other public sector and private sector jobs. Section III introduces a framework for thinking about the choice between postal and private sector employment, which emphasizes the potential importance of job location, local politics and racism in the private sector. In section IV, we describe our data and estimation strategy, and illustrate the changing association between segregation and postal employment from 1940-2000. We interpret this pattern as evidence of spatial mismatch in the face of employment decentralization. Section V considers two alternative explanations for the empirical pattern, and section VI concludes.

II. Employment and Compensation Trends in the Postal Sector in the 20th Century

At the turn of the twentieth century, few men of either race worked in the public sector in any capacity. Over the next seventy years, white employment at the post office and in the broader public sector quadrupled, while black employment in these categories increased over ten-fold. By 2000, public employment had declined from this peak. The wage premium in the postal sector was large for all men, but particularly so for blacks in 1940, the earliest year for which reliable estimates can be constructed. While declining in the intervening decades, the postal premium was still positive for African-Americans in 2000.

Figure 1 depicts the share of men in the non-farm labor force who worked for the post office by race over the century.[2] For comparison, we also show the share of men who worked in the one-digit industry "public administration." This group does not capture all public employees but rather those whose occupations were considered (by the Census) to be "intrinsic" to the public sector. Thus, for example, public school teachers were not classified as working in public administration because a teacher could work for a private school; hence, teachers are classified in the "educational services" industry. Beginning in 1940 the Census included a separate question identifying all public sector workers regardless of their specific job. Appendix Table 1a presents the number of men by race employed in the *entire* public sector from 1940-2000, along with the data underlying Figure 1; Appendix Table 1b contains a set of comparable numbers for women. Intrinsic public employees make up around half of the total public sector over the period, and their growth mirrors that of the sector as a whole.

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[2] All men in these calculations were in the labor force (according to the criteria of the specific census year), not enrolled in school, and between the ages of 18 and 64.

In 1900, rates of employment in the post office per 1,000 workers were 3.8 for black men and 5.3 for white men. The majority of blacks lived in the rural South at the time, where low incomes and low population density limited the amount of mail delivery. As early as 1930, blacks edged past whites in postal employment. By 1970, postal employment had grown for both races, but blacks were twice as likely as whites to work in the postal sector, with 24.5 blacks and 12.2 whites holding postal jobs for every 1,000 men in the labor force in that year. Intrinsic public employment follows a similar pattern. While black men began the century at a slight disadvantage, rates of public sector employment converged by race, with blacks surpassing whites in 1970.

For all men, the odds of postal employment began to decline in the 1970s at a rate faster than the general decline in the share of government employment. In part, this decline may have been a consequence of the introduction of zip codes in 1963, which allowed the substitution of capital for labor as the sorting of mail became largely mechanized. In more recent years, it could also reflect the growth of substitutes for the postal service in the private sector (for example, Federal Express) and the rise of electronic communication.

In salary terms, working at the post office was a plumb job for African-American men. Gosnell (1935, p. 305) reported that, in the late 1920s, the salaries paid to black postal workers made them "among the best livers [on] Chicago's south side." This rosy picture is consistent with nationally representative Census data, which are available from 1940 onward. Table 1 compares weekly wages of postal workers with private sector, non-farm workers by race in 1940, 1970 and 2000. For comparison, we also present the wage premium associated with public sector (non-postal) work.

Even after controlling for standard individual-level measures of human capital (row 2), black postal workers earned 61 percent more than observationally equivalent private sector workers in 1940. This wage premium was twice as large as either the general public sector premium for blacks or the postal premium for whites in the same year. Over the century, the black postal premium declined by a factor of three, but was still positive and significant in 2000, with black postal workers earning 19 percent more than similarly-skilled private sector workers.[3] The decline in the postal premium was not as precipitous as in the general public sector, where blacks are now earning only 5 percent more than equivalent workers in the private sector. The postal wage premium is robust to adding a vector of dummies for occupational title (row 3), thereby comparing, say, clerks or janitors who work for the postal sector to their private sector counterparts. For whites, in contrast, both the postal and general private sector premium turns into a penalty by 1970.

In addition to the salary premium, the *locational advantage* of working at the post office may have increased for black workers as other firms migrated to the suburban ring. The Census first began to collect comprehensive data on place of work in 1970, so we cannot directly explore the divergence of postal and private sector locations over the century. Instead, Table 2 provides suggestive evidence from 1970, comparing the job locations of mail carriers and other employees of the USPS to those of other public sector and all private sector workers. We report the share of jobs found in the central business district and in the balance of the central city; the remainder of jobs are located in the suburbs.

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[3] The method of pay setting in the postal sector changed from 1940 to 1970. At mid-century, wages in the postal service were set by Congressional legislation. In the early 1960s, all federal agencies were opened by executive order to unionization, at which point postal unions became official bargaining agents. It is hard to assess whether this institutional change is responsible for the observed declines in compensation.

By 1970, the suburbanization of employment was already underway, with 47.9 percent of private sector jobs situated in the suburban ring. Despite the presence of federal court buildings and city halls in prominent downtown areas, the *average* public sector job was almost as likely as its private sector counterpart to be in the suburbs (45.4 percent). Similarly, 45.3 of mail carrying positions were based in the suburbs. In contrast, only 29 percent of other postal employment was located in the suburban ring. Instead, nearly twenty percent of these positions were in the central business district, close to majority-black neighborhoods, compared to 8.4 percent of private sector employment and only 5.7 percent of mail carriers.[4]

The average wage and job location are two important factors that govern the choice of whether to work for the post office or to remain in the private sector. For our purposes, what matters is the *association* between these job attributes and a city's level of segregation. The next section lays out a simple model characterizing an individual's choice of sector of employment. The framework helps to illustrate the conditions under which we would expect the probability of postal employment to increase with segregation for black workers.

III. Choosing to Work for the Post Office: A Theoretical Framework

The process of acquiring a position at the post office differs in some key respects from searching for a job in the private sector. To be considered for a job, one must first sit for an exam.[5] Because wages are set administratively at the federal level, they do not adjust to clear the market in any particular metropolitan area. Rather, test-takers who receive a passing score are put into a queue until a job becomes available.

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[4] This disparity in job locations was still present in 2000. While the majority of those who worked in a metropolitan area did not differentiate between central city and suburban locations in that year, for those who did, 59 percent of mail carriers worked in the suburbs, followed by 53 percent of all non-postal workers, and only 40 percent of other postal employees.

[5] Current versions of the exam can be found at: http://www.usps.com/employment/maildeliveryjobs.htm.

Building on this feature of the postal sector, we consider a worker who, for a fixed application fee (F), can put her name into the queue for a job at the post office. Until her name is called, she can continue to work for the private sector. While sitting for the exam is free in monetary terms, individuals still incur the time cost of practicing for and taking the test. Workers can take the test at the start of any period; everyone who passes the test in period J is placed in a pool with a probability p of being offered a postal position in period J and all subsequent periods. Once offered a postal job, workers are assumed to remain in the sector for the rest of their career. Those who secure a position at the post office earn a wage w_p which is common to all employees.

In contrast, the private sector pays $w(s)$, which is a function of an individual's skill level s. In addition, working for the private sector rather than the post office entails a relative per-period commuting cost c. c will be positive if the modal private sector opening is further from an individual's place of residence than the modal postal job. For black workers, c may have increased over the century as private sector jobs moved to the suburban ring; for whites, c might be negative.

For workers with a sufficiently high level of skill, the net wage earned in the private sector will always be higher than the postal sector wage ($w(s) - c > w_p$). These workers will never incur the cost F to enter the postal queue. Workers in the remainder of the skill distribution will enter the queue only if the expected present discounted value of working in the post office from the current period onward outweighs the fixed cost of taking the exam.

The basic idea is readily shown in a two period model. Assume the worker has a discount rate $\beta < 1$ and define g as the net wage gain associated with the postal sector ($g = w_p - [w(s) - c]$). In this case, workers will enter the pool if:

$$p(g + \beta g) + (1-p)p(\beta g) > F \qquad (1)$$

Workers who enter the postal pool face three possible states of nature. With probability p,

they will receive a postal job in the first period and reap the gain in periods one and two. This

path is represented in the first term. Those who are not called in the first period, a fate which

occurs with probability $1-p$, will be called in the second period with probability p for a gain of

βg (term two). In the remaining $1-p$ percent of the time, the worker will not have been called

in either period, and will receive no gains over the private sector wage. The left hand side of

the expression, therefore, represents the expected present discounted value of entering the

pool. Workers will do so only if this total is equal to or greater than the fixed cost of taking

the exam.

The predictions that arise from this framework are quite intuitive. Workers are more

likely to join the postal queue if either the probability of being offered a job (p) or the postal

wage premium increases. The postal wage premium can increase with a revision of the postal

pay scale (w_p), a leftward shift in the private sector wage distribution [$w(.)$], a decline in

individual skill level (s), or an increase in commuting costs (c).

We are looking for an explanation for the association between postal employment and

segregation. Any viable candidate must first give rise to a relationship between segregation

and one of the key variables in the model: p, w_p, $w(.)$, s, or c. Our preferred account hinges on

c; as firms moved to the suburban ring, working for the private sector required an increasing

proportion of blacks living in the center city to "reverse commute." However, in order to

confirm the importance of commuting costs, we will consider the evidence in favor of the

alternatives.

The postal wage scale (w_p), which is set at the national level, is unlikely to be the culprit. Postal wages exhibit very little cross-city variation and are uncorrelated with segregation levels. This leaves three alternatives, the probability of being offered a postal job, the private sector wage distribution, and average skill levels, all of which could be associated with segregation.

The simple model begins from the assumption that all workers in the queue encounter the same probability of landing a postal job. However, it is possible that the odds of securing a job may vary by race: p^b and p^w. Similar to other types of federal civil service employment, open slots in the post office are not simply allocated to the member of the pool with the highest exam score. Rather, hiring officials are presented with a slate of three candidates from which to choose – the so-called "Rule of Three." Those who were not selected would be returned to the hiring pool.

Although the Rule of Three eliminated a good deal of discretion from the system, it did not remove it entirely. If hiring official were subject to political influence and if black political influence was augmented in segregated cities (an argument to which we will return), the relative odds of securing a postal job for black workers in the pool ($p^b - p^w$) might have been higher in segregated cities, leading more black workers to enter the queue.

Another possibility is that the average wage offer faced by black workers of any skill level in the private sector [w(.)] is lower in segregated cities. A city's segregation level and the prevalence of racist attitudes among its residents may be positively correlated, either because racist beliefs encouraged the formation of racially exclusive neighborhoods in the first place, or because the lack of cross-race interaction engenders stereotypical thinking. In either case, white employers or customers in segregated cities harbor racist attitudes, which,

in a Becker model (1971) with tastes for discrimination, would result in lower wage offers for black workers. A job in the postal sector, for which wages are fixed at the national level, might be more attractive to black workers.

Discrimination in the private sector could affect any black worker, regardless of his skill. Alternatively, the average skill level of the black population in segregated cities might have declined over time, increasing the attraction of a fixed-wage postal job to the average black worker. As skilled blacks left ghetto neighborhoods, some settled in the suburbs of their current city, while others moved to new metropolitan areas altogether. If skilled blacks prefer living in integrated cities, the composition of skill could change not only between neighborhoods in a city but between cities as well.

Section V will consider each of these alternatives in turn. Before doing so, the next section documents this paper's central finding – a positive relationship between black postal employment and city-level segregation, which appears only in 1970 and has persisted until 2000.

IV. Postal Employment and Segregation

In this section, we match individual census records to city or metropolitan area characteristics and examine the changing relationship between residential segregation and economic outcomes in the second half of the twentieth century. While living in a segregated city was associated with higher weekly earnings and stronger labor force attachment for black workers in the 1940s and 1950s, this relationship weakened by 1970 and turned decidedly negative by 1990. The question at the heart of this paper is why did ghettos "go bad"? We argue that the relationship between segregation and the probability of working for the postal

service provides a window onto this process. Many postal facilities are located near black

residential enclaves. Before 1970, a black worker's probability of holding a postal job was

unrelated to the segregation level in his city of residence. In 1970, shortly after firms had

begun relocating to the suburban ring in earnest, a positive relationship between these two

variables emerged. This relationship was sustained over the subsequent decades. We interpret

this pattern as evidence that the increasing physical proximity between black enclaves and the

average urban job opening was an important cause of the newly apparent segregation penalty.

A. Data and Estimation

Using the IPUMS data (Ruggles, et al., 2004), we construct a sample of men and

women between the ages of 18-64 who worked in the non-farm economy for every Census

year. We focus on full-time, full-year workers who report being employed in the reference

week, though our results do not qualitatively change if we include part-time workers or if we

restrict the sample to men.[6]

In each year, we separately estimate:

$$E_{ij} = \alpha + \beta X_{ij} + \gamma(B_{ij} \cdot S_j) + \delta_j + \varepsilon_{ij} \tag{2}$$

where *i* indexes individuals and *j* indexes metropolitan areas. E_{ij} is an indicator variable equal

to one for an individual employed in the USPS. E_{ij} is determined, in part, by a vector of

individual characteristics (X_{ij}).[7] A metropolitan area-specific intercept δ_j allows the

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[6] Full-time, full-year workers are individuals who work both 40 hours a week and 40 weeks during the year. We exclude those who are currently enrolled in school, living in group quarters, or in the armed services.

[7] X_{ij} includes a quartic in age, and a series of dummies equal to one if the individual is black, female, married, a veteran or foreign born. Educational attainment is measured as highest grade completed in all years, using the IPUMS education recode in 1990 and 2000. The regression includes dummies for the following categories of completed schooling: 0-8, 9-11, 12, 13-15, and 16. All personal characteristics are interacted with the variable "black." The 1950 regression includes only sample line individuals. In 1940, veteran status is only available for

probability of postal work to vary between places – for example, due to differences in mail

volume in small and large cities.[8] These metropolitan area fixed effects absorb any effect of

segregation on postal employment that is common to all area residents. Our coefficient of

interest (γ) is thus identified from the interaction between segregation and a race dummy

equal to one for all black workers (B_{ij}). If γ is positive, black workers are more likely to work

for the post office in segregated areas, relative to their white counterparts.

We measure residential segregation with the dissimilarity index calculated by Cutler,

Glaeser and Vigdor (1999).[9] The dissimilarity index is defined as $\frac{1}{2} \Sigma_n \mid [(\#black_n / \#black_{total})$

$- (\#non\text{-}black_n / \#non\text{-}black_{total})] \mid$ where n index neighborhoods. $\#black_{total}$ measures the

number of black residents in the entire metropolitan area, while $\#black_n$ indicates the number

of black residents in a particular geographic sub-unit. $\#non\text{-}black_n$ and $\#non\text{-}black_{total}$ are

defined similarly. The index will take on a value of zero in the case of perfect integration, in

which each neighborhood reflects the racial composition of the area as a whole. An index

value of one connotes a perfectly segregated city, in which no neighborhood contains both

black and non-black residents. For the same level of segregation, the dissimilarity index is

mechanically and positively correlated with the size of the area's black population (Duncan

and Duncan, 1955).[10] To determine the effect of segregation *net* of black population size, we

also include the interaction between own race and the black share of the area's population.

For a metropolitan area to be included in the sample, it must both have published

demographic information at the neighborhood level and be identified in the micro data. The

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the sample line, so we add a dummy for being a non-sample line person (which is equivalent to "missing veteran status") in that year.

[8] Standard errors are also clustered to allow for correlated errors at the metropolitan area level.

[9] Our results are robust to using the isolation index as an alternate measure of segregation (not shown).

[10] For example, consider a city with two equally-sized neighborhoods (A and B) and 200 residents. First, imagine that ten of these residents are black and that all blacks live in neighborhood A. Now, double the size of the black population, while maintaining the concentration of blacks in neighborhood A. Simply by increasing the size of the black population, the dissimilarity index increases from 0.775 to 0.800.

latter requirement turns out to be the more binding in some years.[11] For example, segregation indices are available for 314 metropolitan areas in 1970, but only 74 of these are identified in the IPUMS. Our sample of metropolitan areas varies from 45 in 1940 to 229 in 1980. We present our main results for both a complete and a constant set of metropolitan areas. In 1960, metropolitan area of residence is not available in the micro data at all.[12]

In 1940, demographics are available for a larger set of cities at the level of wards rather than census tracts (66 and 45 cities, respectively). We demonstrate that our results are robust to this alternative division of the city and the larger sample of cities in this year. It should also be noted that the 1940 and 1950 indices reflect segregation within the central city alone, while the indices for 1970-2000 are calculated at the metropolitan area level. This difference is due to data availability. Cutler, Glaeser and Vigdor show that these two concepts are strongly correlated in the years in which both measures are available (corr. = 0.817). For consistency, we include all residents of the metropolitan area in our estimation for all years, implicitly treating the city-level index as a proxy for segregation at the metropolitan area level.

The areas in our sample reproduce the U-shaped pattern of segregation over the century documented in Cutler, Glaeser and Vigdor. Measured at the tract level, dissimilarity increases from 0.741 to 0.788 from 1940 to 1970, thereafter decreasing to 0.559 by 2000. These values are quite similar to the averages for Cutler, Glaeser and Vigdor's full sample.

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[11] Due to varying confidential requirements, the number of metropolitan areas identified in the micro data decreases from 132 in 1940 to 119 in 1970 and then increases again to 268 in 1980.

[12] Currently, we do not report results for 1960. However, given the importance of this year in the timing of the change in the "segregation penalty," we plan to supplement our results with a state-level analysis in 1960.

B. When Did Ghettos "Go Bad"?

With our dataset in place, we begin by documenting the relationship between segregation and black economic outcomes over the century. We consider two economic indicators: the logarithm of weekly wages and a dummy for being economically idle, meaning that an individual is neither working nor going to school. Unlike our postal analysis below, these regressions are limited to men. The wage equations include all part-time and full-time workers, while the idleness equations include all sample individuals regardless of their employment status.

Table 3 reports coefficients for the interaction between an individual's race and an area's segregation level for 1940-2000. In 1940 and 1950, segregation was unambiguously associated with positive economic outcomes for black workers. The magnitudes of the reported coefficients indicate the change in the dependent variable for a move from perfect integration to complete segregation. Quantitatively, however, it is more reasonable to consider the effect of a one standard deviation increase in the dissimilarity index – which, for this period, was around 0.12.[13] By this metric, black men who lived in segregated areas in 1940 and 1950 earned around 4 percent more than their counterparts in integrated areas, and were no more likely to be without employment. The earnings premium associated with living in a segregated area declined steadily over the century, becoming a penalty by 1990. In 2000, black men in segregated cities earned 1.3 percent *less* than men in integrated areas. In addition, by 1970, a positive relationship between segregation and idleness is present, with a one standard deviation increase in the dissimilarity index associated with a 1 percentage point increase in idleness.

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[13] 0.12 is the standard deviation among the 229 metropolitan areas identified in 1980, the largest sample. Decadal standard deviations range from 0.07 in 1970 and 0.13 in 2000.

While the direction of change in Table 3 is consistent with Collins and Margo's results, the estimates themselves differ for a few key reasons. First, Collins and Margo (2000) use a small set of metropolitan area characteristics in their estimation, while we include metropolitan area fixed effects, which absorb any local attribute that is correlated with segregation. In addition, to address the concern that the most able black workers might leave segregated cities, Collins and Margo focus only on young adults (aged 20-30), whose location is most likely to be exogenously determined by their parents' location. When we restrict our sample to the young, the segregation penalty appears to be even larger in 1990 and 2000 (not shown). In the presence of negative selection, we would expect that this sample restriction would *mute* the relationship between segregation and economic outcomes. The larger coefficients highlight the fact that, while focusing on the young might avoid the problem of endogenous sorting, it also introduces the problem of differential treatment effects. Young adults may be particularly influenced by the life experiences in a segregated city, either because they lack successful role models or because they are less likely to own a car with which to commute.

C. Segregation and Postal Employment

Differences in specifications aside, our findings confirm Collins and Margo's conclusion that the economic cost of segregation has changed over the century. This transformation occurs at some point between 1950 and 1970, a timing that is consistent with either the departure of the middle class from black enclaves or the loss of central city jobs to the suburban ring. We try to distinguish between these two explanations by investigating the changing relationship between segregation and postal employment. Relative to the private

sector, postal jobs are more heavily concentrated in the central city (Table 2). If segregation

becomes costly because of the growing separation between black enclaves and job openings,

the relationship between segregation and postal employment should *increase* over time.

However, working for the post office was a common job among the black middle class (Table

1). As the middle class leaves black enclaves, job networks that link residents to the post

office will attenuate, implying that the correlation between segregation and postal

employment should *decrease* over time.

Table 4 adjudicates between these two alternatives. Panel A reports the differential

impact of living in a segregated area for blacks relative to whites for the full sample of

metropolitan areas. Panel B restricts the sample to the 45 areas with tract-level data in 1940.[14]

In either case, we find no relationship between segregation and the relative probability of

black postal employment in 1940 or 1950. If anything, the correlation between segregation

and postal employment is negative in 1940, with blacks *less* likely to serve as postal workers

in segregated cities.[15]

By 1970, living in a segregated area becomes positively associated with the

probability of working for the postal service for black workers. A one standard deviation

increase in the dissimilarity index (0.12) increases the probability of working as a postal

employee by 1.4 percentage points, a sizeable amount. The estimates for the rest of the

century are smaller, with a one standard deviation increase in segregation associated with a

0.6 percentage point increase in postal employment. The coefficients are also uniformly

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[14] The full set of areas cannot be identified in either 1950 or 2000, for which only 42 and 40 of the areas are available respectively. We present the results from regressions using these diminished samples in these years, which are not strictly comparable.

[15] The coefficient from a comparable regression in which dissimilarity is defined at the ward level is -0.003 (s.e. = 0.010).

smaller (by 15-20%) in the consistent city sample, while remaining statistically significant (with the exception of 1980).

In general, in the years in which segregation is associated with good economic outcomes (1940, 1950), the presence of black enclaves is uncorrelated with black postal employment. It is only when segregation begins to "go bad" in the 1970s that a positive relationship between segregation and working for the postal service emerges. This relationship is consistent with the spatial mismatch hypothesis, under which living in a centrally-located black enclave imposes additional commuting costs as firms move to the suburban ring. For a sufficiently high cost, workers will withdraw from the labor force, increasing the proportion who are economically idle. Postal employment will also become more attractive, given that it is disproportionately located in the central city. However, a positive relationship between postal employment and segregation could also arise due to the association between segregation and black political power or racism in the private sector, or to the sorting of low skilled blacks into segregated cities. The next section will consider each of these alternatives.

V. Alternative explanations for the segregation-postal employment relationship

The framework laid out in section III illustrates that workers are more likely to enter the queue for postal employment when either the benefit of holding a postal job, relative to a position in the private sector increases, or when the probability of securing a postal job improves. In our simple set-up, the value of postal employment is always higher for those with less skill, and increases when wages in the private sector fall or when the cost of accessing a private sector job increases (for example, due to commuting costs).

In the previous section, we document a positive relationship between a metropolitan

area's level of segregation and the probability that a black resident works at the post office.

This relationship emerges only in 1970 and persists over the subsequent decades. We have

provided suggestive evidence that this relationship could be driven by the potential

commuting cost faced by black workers living in a centrally-located ghetto as private sector

employment moves out to the suburban ring. In this section, we will consider the role of

private sector wage offers and the process of hiring in the postal service.

A. Segregation and Black Political Power

We start by considering the share of those in the queue who eventually receive a job

with the postal service. Our basic model posits that every worker in the pool, regardless of

race or skill, has the same probability of securing a job. This assumption might not be

justified if postal employment is handed out as a form of political patronage. To maintain

support, politicians often supply their constituencies with local public goods or access to

public sector jobs. Hiring officials at the post office have historically had some discretion in

choosing from the pool of qualified candidates (recall the "Rule of Three"), and a strategically

placed phone call from a local official might have mattered at the margin.

It might seem counter-intuitive that residential isolation could augment the black

community's political power but, when representation is neighborhood-based, as it is in

nearly half of American cities, segregation can enhance a group's political clout (Aghion,

Alesina and Trebbi, 2004).[16] To see this, consider a city whose total population is 25 percent

black. The city is divided into four neighborhoods, each of which elects a representative to

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[16] In 1963, 58 percent of American cities held at-large elections for city council, whereas 42 percent had at least some representatives elected by neighborhoods or wards. Of these, 46 percent – or 19 percent of all cities – conducted entirely neighborhood-based elections (Aiken and Alford, 1972).

city council. Assume that race influences preferences over candidates, and that the median

voter in each neighborhood is decisive. If blacks are distributed uniformly throughout the city,

it is clear that blacks will not be pivotal voters in any neighborhood. If, instead, blacks are

concentrated in one of the city's four neighborhoods, the candidate favored by the black

community will be elected to represent this enclave.

Political patronage is unlikely to explain the relationship between segregation and

postal employment for two reasons. First, we would expect the political channel to have been

particularly strong *before* the passage of the Postal Reorganization Act of 1970 (PRA).

Among other things, the PRA redefined the position of local postmaster from political

appointment to civil servant. While rank and file postal employees had long been subject to

civil service rules, the PRA would, if anything, have limited politician's access to the hiring

process. Yet, as we have seen in the previous section, the relationship between postal

employment and segregation intensified after 1970.

Without knowing more about the enforcement of the PRA, we would like to find

independent evidence against the role of political patronage. For this, we turn to regional

variation in the relationship between segregation and postal employment. Before the Voting

Rights Act of 1965, blacks had limited access to the ballot box in the South. Therefore,

politicians had little reason to court the black vote, even in heavily segregated cities.

However, in the North, blacks could (and did) vote.[17] If the relationship between postal

employment and segregation stems from political patronage, we should see a stronger

association between these variables in the North than in the South before 1970.

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[17] Black migrants were just as likely to vote in northern elections as their white urban counterparts. For example, 84.8 percent of adult whites and 84.6 of adult blacks living in northern cities were registered to vote in 1964, and 82.0 and 82.5 percent of them voted in the presidential election, respectively (American National Election Study, 1964).

Table 5 reports results from our main specification run separately by region. Black workers in segregated cities are less likely to work as postal employees in both the North and the South in 1940 and 1950; the coefficients are nearly identical and statistically indistinguishable from each other (and from zero). Because the postal wage premium for black workers peaks in 1940, we would expect the value of postal employment as political currency to have been largest in these early years. There is no evidence that the relationship between postal employment and segregation is stronger in northern cities in which blacks could exercise their right to vote.

Even after blacks gain the right to vote nationwide, the association between segregation and political power may be strongest in northern cities, which were twice as likely as their southern counterparts to apportion city council seats based on neighborhood support (compare 51.2 percent of northern cities to 21.3 percent of southern cities; Aiken and Alford, 1972). In 1970, the relationship between postal employment and segregation is stronger in the North than in the South. However, by 1980 this regional disparity disappears, and by 1990 it reverses. This time pattern is not consistent with fixed regional differences in the reliance on at-large versus neighborhood elections. We cannot rule out that the initial difference in 1970 could be the residual effect of political inequality; while blacks had gained the right to vote in the South by that time, there were few black incumbents in local government in the South by 1970 with enough power to distribution patronage jobs.

B. Segregation and Racism in the Private Sector

Thus far, we have attributed any positive relationship between segregation and postal employment to the relative attractiveness of postal work. Alternatively, the concentration of

workers at the post office could reflect a dearth of opportunities in the private sector. The

hiring process at the postal service, a branch of the federal government, was more

standardized and less subject to employer discrimination than the private sector equivalent.[18]

Could variation in private sector wages explain the increasing relationship between postal

employment and segregation over the century? Perhaps. While the average experience of

discrimination faced in the workplace has been decreasing over the century, the *correlation*

between a city's level of segregation and local racist sentiments may well have been

increasing. This would be true, for example, if all cities were equally racist in 1940, while

only segregated cities remain so today.

One way to test the private sector hypothesis is to contrast the employment patterns of

mail carriers and other postal employees. We can reasonably assume that the postal service is

equally (non-)discriminatory when filling all of its positions.[19] If the relationship between

postal employment and segregation is a byproduct of employment barriers in the private

sector, we would not expect the association to vary by occupation. Alternatively, if the

relationship emerges because of a preference among black workers for jobs located in the

central city, we would expect this association to occur *only* for postal clerks and not for mail

carriers, whose job locations match those of the private sector (see Table 2).

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[18] The federal government practiced active discrimination in the first decades of the 20th century. During the Wilson administration (1913-21), federal offices in Washington were officially segregated. From 1917 to 1939, applicants for all federal positions, including the postal service, were required to provide a photograph, ensuring that the candidate's race was known (Myrdal, 1944, p. 327). However, the federal government's hiring policy changed entirely with Roosevelt's 1941 executive order, which forbade "discrimination in the employment of workers in defense industries or government because of race, creed, color, or national origin (Collins, 2001).
[19] One can imagine counter-arguments to this claim. The postal service may be less likely to hire blacks for mail-carrying positions, which are more visible to a potentially discriminatory public (though it is unclear why the post office, a not-for-profit enterprise, would be constrained by the tastes of the public). Alternatively, in segregated cities, the postal service may value black mail-carriers for their knowledge of or comfort in black neighborhoods. The facts suggest otherwise. In 1940, when the postal service was most likely to have engaged in discriminatory hiring practices, black and white postal workers were equally prone to serve as mail-carriers (36.9 vs. 36.7 percent).

Table 6 presents results from regressions in which the dependent variable is either an indicator for working as a mail carrier (row 1) or for working in another postal job (row 2). For black workers, there is never a significant relationship between segregation and the probability of working as a mail carrier.[20] This finding is not due to large standard errors; the point estimates are negligible. The entirety of the relationship between postal employment and segregation demonstrated in Table 4 is driven by the probability of holding other employment in the postal sector. While coefficients are shown only for three representative years – 1940, 1970 and 2000 – the pattern holds in every decade.

For comparison, Table 6 also reports regressions whose dependent variables are the probability of working as a (non-postal) federal or state employee.[21] The job locations in both of these sectors are very similar to those for mail carriers and private sector workers. Segregation is not significantly related to the probability of working in either category.[22] The "other federal" category does have a large, positive point estimate in 1940 and 1970, which disappears by 1980 (coeff. = -0.005, s.e. = 0.018) and remains negative through 2000. If we use "other federal" as our comparison group, even though its relationship with segregation is not precisely estimated, up to half of the association – at least in the earlier period – could be due to differential opportunities in the private sector. If, instead, we use "mail carriers" as our (more natural) comparison group, the relationship between postal employment and segregation appears entirely unrelated to the private sector and more closely tied to job locations.

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[20] The reported OLS results are very similar to estimates from a set of seemingly unrelated regressions.

[21] Federal employment is an order of magnitude higher in Washington, DC than in other metropolitan areas (in 2000, 17.7 percent versus a mean of 2.2 percent). While the regressions underlying Table 6 include residents of Washington, DC, the patterns do not qualitatively change when they are excluded.

[22] The employment variables for 1940 cannot be directly compared to other years. While the 1940 Census identifies all public employees, it only reports the branch of government for those intrinsic to the public sector. According to the 1970 data, intrinsic employees accounted for one third of the state and two thirds of the federal workforce. In addition, in 1940, the non-federal category includes both state and local government employees.

C. Segregation and Black Skill Levels

The final explanation that we consider for the positive relationship between postal employment and segregation is a changing association between segregation and the skill level of black workers. In our simple framework, the postal service does not pay a skill premium, while the private sector does so. If segregated cities increasingly attracted (or retained) low-skilled blacks over the century and the low-skilled were more likely to seek out postal employment, the relationship between segregation and postal employment could be a spurious one.

To address this possibility, we begin by assessing the second necessary condition – that the low-skilled were more likely to seek out postal employment, at least from 1970-2000. In 2000, after two decades of rising wage inequality, skilled workers had noticeably opted out of the postal service. However, in 1970, this was not the case. The average white postal worker had only 0.04 fewer years of education (s.e. = 0.067) than the mean white worker in the private sector in that year.[23] This gap had grown to 0.46 years (s.e. = 0.054) by 2000.

While it is unlikely that sorting by skill can explain our finding, we further consider this hypothesis by focusing on a subset of the population whose location is most likely to be exogenously determined by their city of birth – young adults. A diminished relationship between segregation and postal employment for this sub-sample might raise concerns that the overall pattern is being driven by endogenous mobility. When we repeat the basic specification for a sample of 20-30 year olds, the large – and least robust – coefficient for 1970 is cut in half, but the relationship in 1980-2000 remains qualitatively unchanged. The coefficient in 2000, the year in which segregation appears to be the most damaging for black

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[23] We focus on white workers here because a difference in skill level for black workers could reflect different levels of discrimination in the postal and private sectors.

economic outcomes, and thus the most likely to induce inter-city mobility, is 0.039 (s.e. = 0.018).

VI. Concluding Remarks

During the first half of the twentieth century residential segregation was positively associated with the emergence of black middle class. But, by the end of the twentieth century black ghettos had turned "bad" – among blacks, wages and employment were lower in highly segregated metropolitan areas. Previous work has not resolved whether the economic isolation of black neighborhoods can be attributed mainly to social isolation – the absence of positive economic role models – or physical isolation – so-called "spatial mismatch".

In this paper, we focus on a particular employer, the U.S. Postal Service, which maintains facilities in every city, many of which are found in central locations close to black enclaves. Using IPUMS data, we examine the relationship between black employment in the postal service and a metropolitan area's level of segregation. Relative black employment in the postal service is an increasing function of segregation, but only from 1970 onward. We argue that the post-1970 timing here is important; it is consistent with the timing of the relative shift of non-postal employment in metropolitan areas towards suburban locations, as opposed to an alternative explanation emphasizing local political economy. In addition, the observed pattern is present only for postal clerical workers, not for letter carriers; the majority of postal clerks work at centralized distribution centers. Relative to whites, black employment at the postal service increased in heavily segregated cities after 1970, we argue, because these jobs were more physically accessible, particularly for less skilled workers.

The results in this paper, it should be emphasized, rely primarily on the IPUMS samples, which identify whether individuals are residents of central cities and (for certain years) where they work, but not precisely so. In future research we hope to buttress our findings by providing more precise detail on the location of postal facilities and the relative employment of black postal workers.

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Figure 1: Postal and Other "Intrinsic" Public Sector Employment per 1,000 Men in the Labor Force by Race, 1900-2000

Notes: The data underlying this figure is presented in Appendix Table 1a and is described in more detail in the associated notes.

Table 1: Wage premium/penalty for employment in public sector, Black and white men, 1940-2000

	Dependent variable = ln(weekly wage)					
	1940		1970		2000	
BLACK	All public	Postal	All public	Postal	All public	Postal
Unadjusted	0.485	0.917	0.115	0.288	0.192	0.305
	(0.022)	(0.046)	(0.007)	(0.019)	(0.008)	(0.023)
Adjusted	0.324	0.612	0.038	0.126	0.047	0.193
	(0.019)	(0.038)	(0.007)	(0.017)	(0.007)	(0.020)
Add occupation dummies	0.208	0.387	0.034	0.117	0.061	0.263
	(0.021)	(0.054)	(0.007)	(0.021)	(0.008)	(0.024)
WHITE						
Unadjusted	0.188	0.273	-0.024	-0.093	0.073	0.044
	(0.005)	(0.011)	(0.003)	(0.007)	(0.003)	(0.011)
Adjusted	0.064	0.323	-0.090	-0.185	-0.095	-0.026
	(0.004)	(0.019)	(0.002)	(0.006)	(0.003)	(0.009)
Add occupation dummies	0.045	0.197	-0.066	-0.142	-0.049	0.114
	(0.004)	(0.137)	(0.003)	(0.008)	(0.003)	(0.013)

Notes: Adjusted regressions includes a quartic in age, years of completed schooling, nine regional dummies, and a set of dummy variables equal to one for individuals who are married, foreign born, a US citizen, or living in a metropolitan area. Information about metropolitan status and citizenship are not available in 1970. In 2000, regressions contain a series of dummy variables for highest degree completed. The vector of occupation dummy variables are defined using three-digit 1950 occupation codes.

Table 2: Work location patterns by sector of employment and race, 1970

	All	Black	Non-black
Mail carrier			
Work in CBD	5.65	12.83	3.77
Work in central city, non-CBD	49.06	66.84	44.41
Other, postal employee			
Work in CBD	17.93	20.94	16.56
Work in central city, non-CBD	53.07	63.87	48.19
Other, public sector			
Work in CBD	10.40	10.22	10.43
Work in central city, non-CBD	44.22	56.57	41.54
Private sector			
Work in CBD	8.44	7.91	8.50
Work in central city, non-CBD	43.62	54.32	42.38

Notes: Means are calculated for the 69 metropolitan areas that are both identified in the IPUMS and for which dissimilarity indices are available. CBD stands for 'central business district.'

Table 3: Segregation and male economic outcomes, 1940-2000

	Coefficients are interactions of black x segregation index					
	1940	1950	1970	1980	1990	2000
ln(weekly wage)	0.355	0.311	0.197	0.082	-0.085	-0.112
	(0.144)	(0.116)	(0.151)	(0.038)	(0.045)	(0.058)
=1 if idle	0.007	0.057	0.079	0.115	0.077	0.068
	(0.024)	(0.051)	(0.032)	(0.037)	(0.015)	(0.028)
N (SMSA)	47	50	75	239	250	93

Notes: Standard errors (in parentheses) are clustered by metropolitan area. Regressions include a race indicator, a quartic in age and a measure of completed schooling (highest grade completed for 1940-80; dummy variables for highest degree completed for 1990-2000), as well as a vector of metropolitan area dummy variables. Following Cutler and Glaeser (1997), an individual is considered "idle" if he is unemployed or out of the labor force and is not enrolled in school. The weekly wage regressions include only men who are not economically "idle."

Table 4: The relationship between racial segregation and postal employment, 1940-2000

Coefficients are interactions of black x city characteristic						
Sample	1940	1950	1970	1980	1990	2000
All available						
Segregation	-0.014	-0.001	0.116	0.057	0.051	0.043
	(0.015)	(0.028)	(0.034)	(0.026)	(0.011)	(0.017)
% black	-0.041	-0.040	0.018	0.013	0.014	0.012
	(0.017)	(0.033)	(0.009)	(0.009)	(0.014)	(0.011)
N (SMSA)	45	46	74	229	189	84
Constant set						
Segregation	-0.014	0.000	0.100	0.037	0.043	0.040
	(0.015)	(0.026)	(0.041)	(0.041)	(0.020)	(0.026)
% black	-0.041	-0.032	0.014	0.002	0.027	0.016
	(0.017)	(0.028)	(0.009)	(0.013)	(0.021)	(0.014)
N (SMSA)	45	42*	45	45	45	40*

Notes: Standard errors (in parentheses) are clustered by metropolitan area. Regressions include a vector of metropolitan area dummy variables, a quartic in age, and a series of dummies equal to one if the individual is black, female, married, a veteran or foreign born. Educational attainment is measured as highest grade completed in all years, using the IPUMS education recode in 1990 and 2000. The regression includes dummies for the following categories of completed schooling: 0-8, 9-11, 12, 13-15, and 16. All personal characteristics are interacted with the variable "black." The 1950 regression includes only sample line individuals. In 1940, veteran status is only available for the sample line, so we add a dummy for being a non-sample line person (which is equivalent to "missing veteran status") in that year.

Table 5: Regional patterns in the relationship between racial segregation and postal employment, 1940-1970

	1940	1950	1970	1980	1990
	Coefficients are interactions of black x city characteristic				
NORTH					
Segregation	-0.025	-0.006	0.129	0.046	0.010
	(0.022)	(0.032)	(0.043)	(0.020)	(0.020)
% black	-0.182	-0.042	0.012	0.070	0.092
	(0.069)	(0.086)	(0.024)	(0.023)	(0.036)
N (SMSA)	32	34	54	150	149
SOUTH					
Segregation	-0.022	-0.010	0.046	0.032	0.044
	(0.031)	(0.097)	(0.021)	(0.011)	(0.012)
% black	-0.012	-0.004	0.039	0.013	0.010
	(0.022)	(0.064)	(0.007)	(0.009)	(0.017)
N(SMSA)	15	14	20	89	93

See Table 4 notes for a description of the regressions underlying this table.

Table 6: The relationship between racial segregation and other forms of public employment, 1940-2000

Coefficients are interactions of black x segregation index

Industry/occupation	1940	1970	2000
Mail carrier	-0.001	0.012	0.006
	(0.013)	(0.011)	(0.006)
Other postal employee	-0.013	0.101	0.037
	(0.015)	(0.026)	(0.013)
Other federal employee	0.036§	0.059	-0.017
	(0.033)	(0.044)	(0.017)
State employee	-0.001±	-0.016	0.020
	(0.026)	(0.025)	(0.015)

Notes: See Table 4 notes for a description of the regressions underlying this table. Mail carriers are designated with the 1950 three-digit occupation codes (=335). Federal and state employees are identified in the class of worker variable in 1970 and 2000. The category "other federal employees" connotes all non-postal employees of the federal government.

§: Other federal employees include only intrinsic federal workers in 1940.

± The category "state employees" also include employees of local governments in 1940. In both cases, only intrinsic employees are identified in this year.

Appendix Table 1: Race and Public Sector Employment in the Twentieth Century: Rates Per 1,000 Persons in the Labor Force

Panel A: Males

| Year | Black | | | White | | |
	All Public Sector	Intrinsic Public Sector	Post Office	All Public Sector	Intrinsic Public Sector	Post Office
1900	Na	7.0	3.8	Na	20.0	5.3
1910	Na	14.2	5.4	Na	27.3	9.8
1920	Na	28.0	6.5	Na	32.2	9.1
1930	Na	29.6	10.6	Na	36.8	10.2
1940						
1950	103.4	51.6	17.4	83.1	47.6	10.2
1960	165.8	86.3	24.3	136.4	81.7	12.1
1970	207.6	93.5	24.5	158.5	87.3	12.2
1980	233.4	104.7	18.9	149.6	78.3	9.4
1990	222.2	112.8	17.8	139.2	72.5	8.4
2000	190.2	95.2	16.3	130.0	68.8	7.6

Panel B: Females

| Year | Black | | | White | | |
	All Public Sector	Intrinsic Public Sector	Post Office	All Public Sector	Intrinsic Public Sector	Post Office
1900	Na	0.8	0.4	Na	8.7	2.8
1910	Na	0.6	0.3	Na	8.6	4.4
1920	Na	5.8	1.0	Na	20.4	5.2
1930	Na	2.6	0.9	Na	16.6	4.0
1940						
1950	104.2	32.9	0.7	119.0	47.1	1.3
1960	147.2	28.7	3.4	164.2	47.2	3.6
1970	239.9	60.9	12.1	188.1	45.4	4.2
1980	304.2	90.8	11.2	191.7	54.4	3.8
1990	261.3	91.8	13.0	169.8	50.3	5.5
2000	241.6	91.3	12.9	175.5	54.9	6.4

Notes: Sample includes individuals ages 20-64, who are in the labor force and are not enrolled in school. Between 1900-30, labor force participation is indicated by holding a gainful occupation. Between 1940-2000, labor force participation is indicated by employment status (at work or looking for work) during the census week. The intrinsic public sector includes workers whose industry is reported as: 906 (postal), 916 (federal, non-postal), 926 (state), 936 (local). In some years, SIC code 946 (level of government not identified) is reported, and is included in total intrinsic figure. From 1940-2000, the 'class of worker' variable classifies all public sector employees, regardless of industry.