

PROSPECTS FOR 'JOB-MATCHING' IN THE WELFARE-TO-WORK TRANSITION:

Labor Market Capacity for Sustaining the Absorption of Mississippi's TANF Recipients\*

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#### Abstract

The 1996 Welfare Reform Act (PRWORA) institutes a maximum sixty-month "life-time" benefit window for TANF block-grant recipients, involving TANF beneficiaries actually finding paid employment somewhere in the extant labor force. We believe that this welfare-to-work transition constitutes the most important element of the welfare reform initiative among states in the U.S. because it reflects the most tenuous element of the "social contract" set by Congress in legitimating the PRWORA. As part of a larger study, we examine three key aspects of the transition-to-work portion of welfare reform in Mississippi and relate them to the potentially uneven realization of sustainability that may be associated with the rural-urban continuum. Using USDA's recent taxonomy of urban influence for Mississippi counties, we examine the following three issues. One, we estimate the prospects for local labor markets to "absorb" the 1996 cohort of TANF recipients by "matching" their current educational credentials to the projected growth in jobs within specific minimum educational levels over the successive five-year period (1997-2002). This builds on our previous work (Howell 1997c) which documented dramatic spatial variation in the crude "absorption capacity" of labor market areas in Mississippi to handle this cohort of TANF recipients. Because childcare arrangements and transportation are two critical elements for sustaining the transition-to-work by families on welfare in the face of available employment opportunities, we also examine the characterization of local areas to meet those needs. Two, childcare facilities in each county within the labor market area are identified and their spatial distributions plotted so as to ascertain the relative availability of these services for TANF recipients. Three, the availability of private automobiles at the household-level within counties is used as a proxy for the availability of transportation. The spatial proximity of households to major road and highway systems is likely to be an effective indicator of "transportation access" in a rural-oriented state such as Mississippi. The results show that, contrary to popular images, there are significant portions of the 1996 TANF cohort who have post-high school education (even holding baccalaureate degrees). There are also disjunctures in the "job-matching" prospects for TANF recipients and these vary spatially. The Delta region labor market involving the nonmetropolitan Clarksdale LMA appears to hold the bleakest outlook for TANF recipients to find jobs that will require the educational credentials that they hold. Areas of the state with the highest levels of urban influence hold the brightest prospects for "job-matched" employment. The availability of regulated childcare facilities also follows this pattern of urban influence.

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When the U.S. Congress passed the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), it made a far-reaching change in the elimination of entitlement programs to many individuals falling below the official poverty line. The Temporary Assistance for Needy Families (TANF) Block Grant Program, for instance, replaced the AFDC program to make welfare more of a transitory "safety-net" and to facilitate the movement of adult family members from welfare beneficiary lists to employment rolls. One of the key provisions of the PRWORA is the welfare-to-work transition and it is one that we believe constitutes a central focus in research on the welfare reform movement. The 1996 Welfare Reform legislation institutes a maximum sixty-month "life-time" benefit window for TANF block-grant recipients, involving TANF beneficiaries actually finding paid employment somewhere in the extant labor force. We believe that this welfare-to-work transition constitutes the most important element of the welfare reform initiative among states in the U.S. because it reflects the most tenuous element of the "social contract" set by Congress in legitimating the PRWORA.

As a state, Mississippi has a large proportion of its population falling beneath the official poverty line. Recent estimates by the Bureau of the Census show that in 1993 Mississippi almost one-fourth (24.6%) of its population in poverty (Howell 1997a). With the exception of Louisiana (23.9%), the statistic for Mississippi is substantially higher than surrounding states in the region. Moreover, there is a higher proportion of working-age (16-64) adults with work disabilities in the state than others in the region (Howell 1997b). Mississippi has 14.3 percent with a work disability while the national average is 10.4 percent. Thus, as a state, Mississippi suffers greatly by comparison to its neighboring states in terms of the share of its population who are poor and who have physical disabilities making them unable to successfully hold employment. What we know very little about is the capacity of local labor markets in Mississippi to "absorb" persons who are scheduled to move from being an entitled beneficiary of a government welfare program, like AFDC/TANF, to being actively engaged in paid employment (Howell 1997c). Work that we review below effectively tells us little about rural areas of the U.S. and how rural labor markets can "absorb" former welfare beneficiaries because these studies are based either on national, state-level, or MSA-specific research sites. Since rural America is changing in terms of its pattern of development toward suburbanization and more complex forms of social ecology (Ghelfi and Parker 1997), we do not know how much urban areas will "influence" rural labor markets in the welfare-to-work venture.

#### Purpose of Study

As part of a larger study, we examine three key aspects of the transition-to-work portion of welfare reform in Mississippi and relate them to the potentially uneven realization of sustainability that may be associated with the rural-urban continuum. Using USDA's recent taxonomy of urban influence for Mississippi counties, we examine the following three issues. One, we estimate the prospects for local labor markets to "absorb" the 1996 cohort of TANF recipients by "matching" their current educational credentials to the projected growth in jobs within specific minimum educational levels over the successive five-year period (1997-2002). This builds on our previous work (Howell 1997) which documented dramatic spatial variation in the crude "absorption capacity" of labor market areas in Mississippi to handle this cohort of TANF recipients. Because childcare arrangements and

transportation are two critical elements for sustaining the transition-to-work by families on welfare in the face of available employment opportunities, we also examine the characterization of local areas to meet those needs. Two, childcare facilities in each county within the labor market area are identified and their spatial distributions plotted so as to ascertain the relative availability of these services for TANF recipients. Three, the availability of private automobiles at the household-level within counties is used as a proxy for the availability of transportation. The spatial proximity of households to major road and highway systems is likely to be an effective indicator of "transportation access" in a rural-oriented state such as Mississippi.

## REVIEW OF LITERATURE

### A Regional Context on the Rural South

The shifts occurring in the public assistance programs in the United States are creating significant challenges for rural America. But, the region of the country that stands to be especially affected is the rural South. Simple demographics prove to be a key factor in why this is so (see Swanson and Brown 1993; Wimberley and Morris 1996). The South remains home to the largest number of non-metropolitan residents. Over 22 million people are rural Southerners, constituting 45 percent of our country's nonmetro population. But, beyond demographics, the socioeconomic complexion of the region dictates an urgency to give focus to this region. With the onset of TANF, for example, expectations are that people and communities of the rural South will be hard pressed to meet the major challenges associated with fully implementing this joint Federal-State program. Because welfare dependency, poverty, unemployment, and underemployment are highest in this region (Cook and Dagata 1997; Howell 1997a,c), the capacity of the South's rural local labor markets to create enough decent paying jobs to facilitate the movement of welfare recipients into the marketplace appears problematic (Reeder 1997). Further aggravating the situation are the limited human capital endowments possessed by many rural Southerners. Because the rural South leads the nation in the number of poorly educated workers, TANF recipients—who tend, on the average, to have low levels of educational attainment and limited work skills—are likely to experience significant competition for jobs amongst the large cadre of non-welfare workers with limited education who live in the rural South (McMurrer et al. 1997).

Adding to the urgency of addressing welfare reform issues in the rural South is the existence of significant racial diversity in this region (Wimberley and Morris 1996). Of the 4.8 million African Americans who reside in country's nonmetropolitan areas, better than 91 percent are living in the nonmetro South. As such, racial diversity has been an integral component of the social fabric of the rural South for decades and has presented serious challenges to the region. The majority of jobs filled by blacks, for instance, continues to be among the more marginal ones in terms of job conditions and wage rates. Furthermore, industrial development activities have tended to shy away from localities having sizable percentages of African American residents. No doubt, rural local communities with racially diverse populations will continue to face significant hurdles in their attempts to develop equitable responses to the challenges of moving welfare recipients into the workforce.

### Mississippi : Among the Nation's Most Rural and Impoverished

In many respects, the conditions characterizing rural areas of the South are matched, and at times are more severe, in the rural localities of Mississippi. Mississippi represents the second most rural state in the nation with nearly 67 percent of its population being classified as nonmetro in 1996-97, according to a combined average of the 1996 and 1997 CPS non-metropolitan estimates of population for Mississippi. In addition, Mississippi is among the poorest states in the nation with one-in-four rural people living in poverty. Most striking is the fact

that among the nation's poor nonmetro African Americans, some 20 percent are residents of the State of Mississippi (Nord 1997).

Given its high ranking on rurality and poverty status, it should be no surprise that Mississippians in general, and its rural residents in particular, have heavy proportional dependence public assistance programs relative to the region as a whole. Specific data to support this overview are presented in Figure 1. Relative to nonmetro and metro areas of the South, the use of Aid to Families with Dependent Children (AFDC), the precursor to TANF, was highest in nonmetro households in Mississippi relative to the metro areas of the state or the metro and nonmetro areas of the region. Moreover, nonmetro households in Mississippi were more likely to be dependent on Food Stamps (18 percent), Supplemental Security Income (11.4 percent), and free or reduced school lunch programs (30.7 percent) vis a vis metro areas of Mississippi or the non-metro/metro areas of the South. Collectively, these data offer a compelling argument regarding the need, as well as importance, of focusing on rural Mississippi as a site for more fully exploring the critical set of research issues, policy activities, and current or emerging strategies that play out in rural America with regard to the welfare to work provisions of TANF.

### Attempts to Assess Prospects for the Welfare-to-Work Transition

There is a growing recognition that the welfare-to-work transition reflects a pivotal issue determining the success of the welfare reform initiative. There are now several research studies or programs of studies that give us some insight about both the prospects for AFDC/TANF beneficiaries finding employment in the paid labor force and for how the local economy's performance will affect TANF caseloads. We briefly review some of these efforts now with a perspective toward informing this study of the prospects that TANF beneficiaries in Mississippi face as they negotiate the welfare-to-work transition.

The book by Rebecca M. Blank, *It Takes A Nation: A New Agenda for Fighting Poverty* (1997), directly assesses the presumed effect that economic growth ("trickle-down economics") has on the reduction of poverty. She demonstrates that, for the U.S., the tremendous increase in the per-capita Gross Domestic Product (GDP) during the past 30 years occurred at a time when the poverty rate declined dramatically. However, the inflation-adjusted (real) terms, the poverty rate should have fallen faster than it actually did. This is a reflection of the actual decline in wage rates among the poorest 10 percent of workers. Thus, economic expansion doesn't necessarily create better-paying jobs for all sectors of the population. By the 1990s, this situation seemed even bleaker in outlook as poverty rates continued to rise after the 1991 recession. She argues that the lowering of wage rates during the 1990s among the poorest section of the population—and those most likely to receive public assistance benefits such foodstamps and AFDC/TANF—indicates that the public policy of reliance on economic growth as a means for reducing poverty and, therefore, the demand for public assistance is not effective. In essence, the "increases in the overall economy are offset by the falling wages among less-skilled workers" (1997: 56). Blank's work has given rise to a growing body of studies which attempt to model the more precise connection between economic fluctuations and AFDC/TANF caseloads (Blank 1997b; Blank and Ruggles 1997; Martini and Wiseman 1997; Ziliak et al. 1997; Congressional Budget Office 1993) as well as Foodstamp Program participation (Kuhn et al. 1997; Blank and Ruggles 1997).

While the concern over what drives the public assistance caseloads and, specifically, how the economy may shape or determine them is an avenue of important inquiry, the more important issue for this study is the extent to which TANF beneficiaries scheduled to move off of this program face prospects of employment in their local labor market. The so-called capacity of local labor markets to successfully "absorb" former TANF recipients is perhaps the pivotal issue within the 1996 welfare reform legislation.

Work focusing on the Cleveland, Ohio metropolitan area by Leete and colleagues is particularly insightful as

they have perhaps articulated many of the theoretical and practical issues surrounding the capacity for local labor markets to accommodate individuals receiving TANF benefits (Leete and Bania 1996). However, it is important to note that this study is distinctly urban in its locale and reflects results that may not be generalizable to rural, nonmetropolitan areas of the U.S.

In evaluating the demand for jobs created by almost 20,000 former AFDC recipients entering the labor market in the Cleveland-Akron MSA, they focused only on "low-skill" jobs. Leete and Bania (1996) estimate that there will be an additional 147.9 percent growth in low-skill jobs openings required to meet the needs of those formerly on AFDC. Since over 90 percent of those beneficiaries are women, the "gendered" nature of occupational employment patterns in that metro area suggests that the available job openings which are typically accessible to women would require an additional 189 percent of low-skill positions. In essence, this study finds that in the Cleveland-Akron MSA, there will have to be a doubling or tripling of low-skill job openings over the successive year.

In a separate analysis of the same study area, Leete et al. (1998) examined the degree of spatial "mismatch" between the location of job openings around the Cleveland MSA and AFDC beneficiaries. They first geocoded a sample of 2,000 of the 37,688 persons receiving benefits in Cuyahoga County, Ohio during 1995 to allocate them to Census Tracts. Then these tracts were identified further by the ratio of long-term to short-term welfare recipients so as to typify the Census tracts as neighborhoods that would be most affected by welfare reform. In addition, they tried to estimate the number and location of jobs with various levels of low-skill requirements based upon a creative use of microdata from the Census Bureau's PUMS 5-Percent sample. They identified entry-level occupations (requiring 11-12 years of schooling and less than 6 months of job-specific training); short-term training occupations (requiring high school education and 6-12 months of additional training); and long-term training occupations (requiring from 1-2 years of post-secondary education and/or training). Leete et al. made projections of annual openings by occupation and skill-level for 1991-2000 using various data sources and linked them to 5-digit zipcodes within the Cleveland-Akron MSA. They added the average public transportation commute times and the location of housing estimated to be affordable by former AFDC recipients in proximity to available job openings over the succeeding several years.

Their key findings from these estimates were that AFDC recipients were highly concentrated into spatially distinct inner-city locations in the Cleveland metropolitan area. Supporting the "spatial mismatch" hypothesis, most of the projected low-skill job growth is likely to be in the suburban fringes of the Metropolitan area. Moreover, most of those suburban jobs are inaccessible to them via public transportation as only 8-15 percent of these jobs are within the 20 minute commute time used to define "accessible" jobs by the authors. To indicate how spatially concentrated these low-skill job openings are like to be, Leete et al. estimate that four suburban job clusters contain 30 percent of the total job openings in the Cleveland-Akron MSA. The findings regarding affordable housing within proximity to these projected job openings was even bleaker. The ratio of affordable housing units within the specified commuting distance in the outer suburbs, where the vast majority of the projected low-skill jobs will be, is only 1 to 6. This indicates that there is only a single affordable housing unit for every six low-skill job openings in the suburbs.

The work Leete and Bania is continuing and reflects some important research into the capacity of a local labor market to accommodate AFDC/TANF recipients who must find employment. Because their work is solely focused on in-depth investigations of a single metropolitan area, it does not tell us about other metro areas or of the nature of the welfare-to-work transition in non-metropolitan sections of the United States. We now turn to the only study of which we are aware that does focus on specific local labor market areas and that includes both metropolitan and rural areas.

## Examining Mississippi's Labor Market Capacity

A recent study by Frank Howell (1997) at Mississippi State University focused on the central question of the welfare-to-work transition: What is the capacity of local labor markets in Mississippi to “absorb” persons who are scheduled to move from being an entitled beneficiary of a government welfare program, like AFDC/TANF, to being actively engaged in paid employment? Employing data on the peak (monthly) number of 1996 adult AFDC recipients by county, he examined the prospects that TANF participants would face in making the transition to paid employment based on the estimated total job growth in their local labor market. The total number of AFDC recipients was adjusted downward using 1990 estimates of work disability by county from the U.S. Bureau of the Census and modified to reflect those work-disabled persons likely to receive AFDC benefits. This adjusted number of AFDC recipients represents the potential number of the “newly unemployed” who would be seeking jobs in their local areas. Using proprietary data on employment and job growth from Woods & Poole Economics, Inc., the adjusted number of 1996 AFDC recipients were divided by the projected job growth over the following three year period (1996-1999). This ratio yields an “absorption index” of the local labor market’s capacity to incorporate AFDC recipients into the paid labor force, amortized over a three-year transition period. Because actual labor markets are not fully encompassed by county boundaries, this ratio was recalculated for labor market areas (LMAs) in Mississippi. The labor market area index comes closer to reflecting the local area’s ability to generate job growth to match the requirements of the new welfare program. His results involving the “absorption index” are shown in Figure 2 which depicts the labor market areas in Mississippi.

Within each labor market area, counties vary widely in the ratio of AFDC recipients to projected job growth (e.g., in LMA 027: the ratio is 0.20 for Harrison and 4.45 for Pearl River). However, given that labor markets are comprised of commuting zones where many workers tend to travel daily from one county to the next, it makes sense to examine the “absorption index” for the labor market as a whole. In this example (LMA 027), for instance, the ratio is 0.35, or about two-and-a-half new jobs produced over the three-year period per AFDC recipient. Figure 2 illustrates how this absorption index varies for each LMA in Mississippi. The results show that AFDC recipients face the bleakest outlook in the Delta where there will be well over 2 AFDC recipients per new job. This is largely due to the projected lack of employment growth in this LMA for the period 1996-99. On the other extreme, there are several LMAs where the ratio is over two jobs per AFDC recipient. These involve labor markets around Tupelo and Memphis; on the Gulf Coast surrounding Gulfport-Biloxi; and in the Laurel area. Labor markets where the estimated absorption capacity just about matches the adjusted number of AFDC recipients (i.e., index  $\sim 1.0$ ) include a geographic band running southeast from Coahoma County through Grenada and the Golden Triangle to Meridian, a large portion of the state. The remaining classification involves LMAs where there are about 1.5 AFDC recipients per new job. There is one LMA falling into this category, that being the Vicksburg-Natchez area.

This exploration of the capacity of Mississippi’s labor markets to generate new jobs that spatially coincide with the anticipated need to move adults from welfare rolls into paid employment is, at this point, exploratory. It uses projected employment that, while historically fairly accurate, may not prove so over the period considered. The method is “optimistic” in the sense that it only examines the crude ratio of one year of AFDC recipients to projections of total employment growth, without taking into account the matching of job requirements to persons seeking employment. Additionally, the MS Department of Human Services indicates that 1997 and 1998 monthly TANF caseload reports show a decidedly downward trend in the number of beneficiaries. Moreover, this report only deals with one program in the overall welfare system. More careful study of these and related issues is certainly needed as the process of welfare reform unfolds in one of the poorest states in the nation.

## Examining the Urban Influence in Mississippi's Rural Areas

The labor market research undertaken by Howell (1997c) offers preliminary evidence that the ability of a local labor markets to create enough jobs to facilitate the transition of TANF participants from welfare to work is determined, in part, by their spatial proximity to a metropolitan area. In essence, LMAs that are composed of more remote localities do not appear positioned to successfully absorb TANF recipients into the local labor market area. These early findings argue for the importance and necessity of incorporating spatial factors into any examination of rural welfare to work issues in Mississippi. Integrating spatial features into welfare to work research helps demonstrate that "rural" should not be interpreted as a singular concept, but one that is multi-faceted in nature and requires public policy to recognize this spatial pluralism.

A recent typology created by the Economic Research Service/USDA (Ghelfi and Parker 1997: 32) represents a valuable for tool that can be used by researchers to strengthen their work on how economic opportunities may differ across geographic space. Labeled "the urban influence codes," this typology classifies counties (or their equivalents) and independent cities into nine groups. Metro counties are sub-divided into two categories -- large metro and small metro areas. Nonmetro counties are divided into groups on the basis of their proximity to a large or small metro area, and further by the population size of the largest city/town located within it. The distribution of Mississippi's 82 counties by the nine urban influence codes created by Ghelfi and Parker are presented in Table 1.

As Figure 3 reveals, Mississippi contains quite a few counties that are designated as rural and would appear to have little "influence" exerted by propinquity to large urban areas. Approximately 23 percent of the counties are adjacent to these metro areas, while the remaining 68 percent are not located contiguous to any metro area of the state (see Table 1). Note, too, that Mississippi has only one of the largest metropolitan areas: DeSoto County as part of the Memphis MSA. These figures suggest that Mississippi has many rural areas that are remote from urban centers. As such, these localities will be seriously challenged as these seek to create an economic climate that will facilitate the entre of welfare recipients into the workforce. However, recalling the need to consider the spatial pluralism in rural areas, it is likely that these relatively "isolated" counties in Mississippi labor markets may vary significantly in their capacity to absorb TANF recipients into the paid labor force. How transportation access may reduce such "remoteness" vis-a-vis prospective job growth in labor market areas will be discussed further below. Another obstacle to sustainable welfare-to-work transitions by TANF recipients, available childcare, is also examined within Mississippi's labor market areas in a subsequent section.

Important in Figure 3 also is the spatial articulation of how counties in the state coalesce into consolidate labor market areas (LMAs) based upon the routine commuting-zone behavior of employed workers traveling to and from work. The county composition of many of these LMAs is not surprising. The Memphis LMA not only involves DeSoto County but also that of Tunica, Tate, Marshall, and Benton. The access to Memphis by Interstate 55 and U.S. 78 (also an Interstate-class highway) no doubt conditions the commuting behavior of workers residing in these counties to facilitate their living and working amongst this set of counties. The Delta area, as a known geographic region, is spread across three LMAs, however. The "core" Delta of Bolivar, Sunflower, Washington, Sharkey and Issaquena counties comprise a single LMA while Coahoma Quitman, Tallahatchie and Leflore join with others surrounding the cities of Batesville, Grenada, Oxford and Winona to form another distinct LMA. Similarly, there are distinct labor market areas affiliated with the cities of Corinth, Tupelo, Columbus, Meridian, Laurel, Hattiesburg, Vicksburg-and-Natchez, Jackson, and Biloxi-Gulfport-Pascagoula. We refer to these LMAs as important entities in the study of the welfare-to-work transition because they currently serve as the most likely "job search" areas for non-welfare beneficiaries when they seek to become employed after a job loss. As such, it is the benchmark against which we would expect TANF recipients to search for jobs upon leaving the State's welfare rolls.

## RESEARCH METHODS

### Sources of Data

The data for this study comes from several different sources: administrative records of the Mississippi Department of Human Services for data on AFDC/TANF caseloads; administrative records from the Mississippi Department of Health for data on licensed childcare facilities; and proprietary data obtained from Wessex Inc. on estimates of county-level employment by occupational class for 1997 and projections to 2003. To protect the proprietary nature of these data, we do not report any detailed counts from the Wessex dataset at the county-level but we have aggregated them to the multi-county Labor Market Area (LMA) since an infinite number of combinations of the county-level estimates or projections could sum to the LMA estimate. Other spatial data were obtained from the U.S. Bureau of the Census TIGER database and the ESRI StreetMap(tm) street file proprietary database of streets and address-ranges for locating physical address locations.

### Measurement of Variables

The operational definition of each variable used in this study is described in this section. They are summarized under the following headings:

**TANF CASELOADS, BY EDUCATION.** The numbers of TANF recipients during the twelve months of 1996 were obtained from the Mississippi Department of Human Services (DHS). These data were already aggregated to the county-level and matched to conventional county FIPS codes. We received counts for each month by education-level for adult recipients. Using the "peak-month" monthly count for each county so that we were examining the maximum potential TANF caseload, a conservative strategy for studying the labor market's capacity to absorb recipients into the labor force, we collapsed educational levels into three categories. These included: (a) less than high school; (b) high school only; and (c) post-secondary school (including baccalaureate degrees or above).

**OCCUPATIONAL GROUPINGS.** Data on estimates and projections of employment by major occupational class were obtained from Wessex Inc.'s proprietary database. While it would be ideal to have detailed occupational classifications, such as either the three-digit Standard Occupational Classification used extensively by the Bureau of the Census or those found in the Occupational Outlook Handbook from the Department of Labor, such data in public-use form are not available to us. The use of proprietary county-level data from Wessex Inc. on major occupational groupings, aggregated to the LMA-level to avoid disclosures, seemed the optimal source of information for this study. The major classes were collapsed as follows to represent: (a) "white-collar" jobs, comprised of Executives, Professionals, Technical, and Sales; (b) "skilled-worker" jobs, comprised of Clerical, Protective Services, Production Workers, and Other Services; and (c) "unskilled-worker" jobs, comprised of Operators, Materials Handlers, Unskilled Laborers, and Private Household Workers. While this classification scheme is by no means undebatable in terms of how specific occupations can be collapsed to represent these three crude classes of workers, we believe that it does provide a beginning through which the "job-matching" process can be examined.

**URBAN INFLUENCE COUNTY CODE.** This classification scheme was developed by the USDA Economic Research Service (ERS) and published in Ghelfi and Parker (1997). It is taxonomy that classifies counties in terms of the level of "urban influence" that typifies the county as of 1990 and contains nine codes. They are: (1) large metropolitan areas, having 1 million or more residents; (2) small metropolitan areas, having fewer than 1 million residents; (3) adjacent to a large metropolitan area with a city of 10,000 or more residents; (4) adjacent to a large metropolitan area without a city of 10,000 or more residents; (5) adjacent to a small metropolitan area with a city of 10,000 or more residents; (6) adjacent to a small metropolitan area without a city of 10,000 or more

residents; (7) not adjacent to any metropolitan area but with a city of 10,000 or more residents; (8) not adjacent to any metropolitan area with the largest city in the county between 2,500 and 9,999 residents; and (9) not adjacent to any metropolitan area with the largest city in the county having less than 2,500 residents.

LABOR MARKET AREA (LMA). Using the concept of "labor market area," we constructed spatial coverages of multi-county groups which comprised the LMAs designated through commuting-zone patterns by Tolbert and Killian (1996) for 1990.

LICENSED CHILDCARE FACILITIES. The Mississippi Department of Health maintains a database of childcare facilities in the state that are awarded licensed-status under the terms of the state's requirements for licensure. We obtained the most recent data (1997) and, using the street address locations, geocoded each facility to latitude and longitude coordinates using ESRI's Streetmap(tm) database, a version of GDT's Dynamap 1000 product (see Environmental Systems Research Institute 1997). For each facility, the maximum number of children licensed for service, the current number of children enrolled, the typical number of openings for additional children, and the number of employees at the facility were included into the final geocoded childcare dataset. These data were summarized at the county and labor market area (LMA) level in some portions of the analysis.

HOUSEHOLDS WITHOUT AUTOMOBILES. The estimated number and proportion of households within each county in 1997 without at least one personal automobile came from the proprietary Wessex Inc. database. No proprietary county-level counts are revealed in this report but since an infinite number of county-level counts could sum to the labor market area, we do make use of the number of "no car" households estimated to be at the LMA for 1997.

JOB-MATCHING RATIO. This is the ratio of TANF recipients in 1996 to the projected job growth over the period 1997-2002. This period matches the 60-month window set forth in the PRWORA for "lifetime" benefits under TANF. The raw job-matching (JM) ratio is the sum of ratios of TANF-96 recipients to the projected change in jobs during 1997-2002 for the three job classes of (1) unskilled [operators, materials handlers, laborers, private household workers], (2) skilled [clerical, protective services, production workers, other services], and (3) white-collar [executives & managerial, professional, technical, sales] occupations. The weighted job-matching ratio is the raw JM ratio weighted by the proportions of TANF-96 recipients in the three educational groups of: (1) less than a H.S. diploma, (2) a H.S. diploma; and (3) post-H.S. education. The composite or weighted JM ratio is an estimated "absorption index" of the capacity of a local area to "absorb" TANF cohort members into jobs that "match" their educational credentials. One issue that arises for both JM ratios is when projected employment growth is negative, indicating that net job loss is forecast for the area. In these instances, the resulting JM ratio simply reflects the relative magnitude of TANF recipients to the projected loss in jobs over the period. Because this negative ratio does not follow the intended metric for the JM ratio, we simply label it as "job loss" in tables or maps.

## RESULTS

The purpose of this study resulted in three phases of analysis. One is estimating the absorption capacity of Mississippi's labor market areas. Another is the availability of quality childcare as a sustainable venue for facilitating a successful welfare-to-work transition. The third is the relationship of transportation access to projected job growth and the TANF caseload. We present results following these three sets of analyses.

## Labor Market Capacity for Absorbing Welfare Caseloads

We first examine trends in the AFDC/TANF caseload during most of this decade. The series shown in Figure 4 is the monthly AFDC/TANF caseload for persons during the October, 1991 through June, 1998 period. This series yields a well-defined time-period before the 1996 welfare reform legislation was enacted (1991-1995) while also allowing us to examine the short-term shifts in caseloads since the legislation became public law. The county caseload counts provided by MS DHS were aggregated to the Labor Market Area definitions shown in Figure 3. The solid lines, differentiated by color, represent LMAs in which a Metropolitan Statistical Area (MSA) is located while the dashed lines, also differentiated by color, represent the nonmetropolitan LMAs.

This trend analysis reveals several characteristics of the TANF caseload across Mississippi's labor market areas. One, during 1991 there were a very wide differentiation among LMAs in their caseloads. The Jackson LMA had, far and away, more TANF recipients than any other labor market, double that of the next closest area, the Greenville LMA. For the beginning of the series (1991), there appear to be three "groups" of LMAs, in essence. This includes (a) Jackson; (b) Greenville, Clarksdale, and Biloxi-Gulfport-Pascagoula; and (c) the remaining LMAs. Two, several labor market areas had relatively small numbers of TANF recipients for most of the period. Some of these are located in the Northeastern section of the state. The nonmetropolitan LMAs of Corinth and Tupelo are the key examples of this low caseload profile during the entire series. Three, there have been substantial declines in TANF caseloads during this period for all LMAs, with the nominal exception of those already having caseloads nearing the "floor" at the onset of the series. Recall that in 1991, the U.S. was in a recession and that most of this series is somewhat related to the significant economic growth experienced by the national and state economy (Blank 1997a,b). These three characteristics of the TANF caseloads in Mississippi's labor market areas basically reflect the "ceiling" effects of the Jackson LMA's dramatic declines and the "floor" effects of the stability in the Tupelo and Corinth LMAs, coupled with the presumed effects of a growing economy on secular declines in TANF caseloads. However, these trends also have spatial consequences that this graph does not directly depict. We will turn to this aspect of our study now.

The distribution of 1996 TANF recipients by educational level across Mississippi's labor market areas is an important aspect that will determine how effectively the welfare-to-work transition will be accomplished. Educational credentials are a critical aspect of human capital and the match between TANF recipients seeking employment and the educational requirements of jobs found in their LMAs is a key element of this transition. Contained in Table 2 is the count of 1996 AFDC/TANF recipients by education level for the thirteen LMAs in the state. These absolute counts are important for our understanding the absolute caseloads facing the 60-month lifetime window of assistance. These data are further summarized spatially in Figure 5 which depicts them in a map of the state's labor markets. In this map, each LMA's TANF caseload by educational level is expressed as a percentage of the total caseload. This proportional representation of the data informs us about the educational composition of TANF recipients within each LMA. These raw counts and these percentages each tell a different part of the story regarding the educational credentials of TANF beneficiaries will present to prospective employers.

The summary in Table 2 shows that, in 1996, the LMAs of Jackson and Greenville have the largest pool of AFDC recipients. One is a metropolitan-based labor market and the other is decidedly nonmetropolitan and in the heart of the Mississippi Delta. These two are followed by the non-metro Clarksdale LMA, also in the Delta, and the metro Biloxi-Gulfport LMA. The remaining LMAs have fewer total AFDC recipients in 1996. However, relative to popular opinion about welfare beneficiaries (e.g., Blank 1997a), there are significant numbers of AFDC recipients with post-high school education. Using data not shown in this table, there are significant numbers of recipients holding college degrees in several of these labor market areas.

If we turn to the map with pie-charts of cases by educational level made proportionate to the total caseload

within each LMA (Figure 5), we can examine the county composition of AFDC beneficiaries by education level. To be sure, within each LMA, the majority of these welfare recipients have less than a high school education and this is not surprising, given the qualification requirements for AFDC/TANF itself. What is surprising is the number of counties within LMAs that have at least one-fourth of their resident AFDC/TANF caseload consisting of adults with post-secondary educational training. Some of these are near the state's universities. For instance, Lafayette County, the site of the University of Mississippi at Oxford; Oktibbeha County, the site of the largest university, Mississippi State; and Forest County, the site of the University of Southern Mississippi at Hattiesburg all fit this pattern. There are other counties in which the post-secondary component reaches one-quarter of the total caseload. Prentiss County has the largest such share with it reaching approximately one-third in that county. In Hancock County, the site of the NASA Stennis Space Center, and in nearby Pearl River County, the composition of AFDC/TANF recipients with more than a high school education also reaches 25 percent or better.

Thus, while most welfare recipients during 1996, at least for the AFDC/TANF program, had less than a high school education, these data suggest that there is a significant variation in educational levels among welfare recipients. Moreover, this variation in both the number and the relative share of post-high school recipients occurs along spatial lines. This variation in human capital availability may prove to be an important aspect of the welfare-to-work prospects that Mississippi's TANF recipients face as they seek employment.

We turn to the employment, or "demand," side of the equation and examine a characterization of the occupational composition, employment trends and projected shifts in these 13 Labor Market Areas during the five-year benefit window that the 1996 TANF cohort will face during 1997-2002.

In Figure 6, we contrast the occupational composition of each LMA through the display of a simple barchart of white-collar, skilled, and unskilled jobs within each labor market area. These bars reflect absolute numbers of estimated employees by occupational class and, as such, can be visually compared across LMAs. It is clear that white-collar jobs are concentrated in the most urban centers of the state, particularly in the Jackson LMA. Biloxi-Gulfport-Pascagoula follow Jackson, as does the Memphis Metro LMA, and so forth. These patterns are not unusual and reflect the spatial concentrations in the technical division of labor among occupations. It is worth noting that the relative share of jobs across Mississippi's labor market areas tends to equalize in terms of typifying an LMA as being "dominated" by either white-collar (e.g., Jackson), skilled (e.g., Biloxi-Gulfport-Pascagoula), or unskilled (e.g., Greenville). That is, we emphasize that this statistical equalization in these 1997 estimates tends to be contrary to what popular opinion holds as "typical" for Mississippi's regions and labor markets. While the Jackson and Biloxi-Gulfport-Pascagoula LMAs do tend to have about twice as many white-collar and skilled workers as unskilled ones, the remaining LMAs tend to have a very similar distribution of workers falling into all three categories of jobs. The importance of emphasizing this distribution comes on the heels of our finding of a surprisingly higher than anticipated number of 1996 AFDC/TANF recipients having post-high school education credentials and the potential connection for "job-matching" outcomes in the welfare-to-work transition. We will return to this topic shortly.

In Table 3, the employment, unemployment and unemployment rate for 1997, 2002, and the projected change from 1997-2002 is shown by LMA. Comparable statewide estimates are also produced in this table. These summaries tell us about the total employment outlook that can be expected during this welfare-to-work transition. Figure 7 contains a "bubble-map" visualization of the percent growth in total employment from 1997-2002 by Labor Market Area in Mississippi. The employment change variables are obviously important as indicators of new job growth but the unemployment variables also serve as indicators of the "competition" for those jobs. As the number of unemployed people in the labor force (e.g., seeking employment) increases, there is more potential competition for AFDC/TANF recipients for available jobs.

As can be seen from Figure 7, the growth in total employment from 1997-2002 will be led by the Memphis LMA (although these data only contain the Mississippi counties in the Memphis labor market) at over 12 percent

growth. The Gulf Coast, with Biloxi-Gulfport-Pascagoula LMA, will follow at about 10 percent growth. The Tupelo LMA comes third in project employment growth with just under 8 percent. The remaining LMAs fall somewhat below these optimistic projections. On the less than rosy end of the picture, the Greenville LMA, at 1.82% growth, an annualized rate of growth of less than 0.4 percent, stands out as a labor market that is not likely to fare well in “absorbing” former AFDC/TANF recipients due to the sheer lack of net job growth (totaling 869 over the five-year window or 173.8 per year). The increase in the number of unemployed persons, which does not take TANF recipients explicitly into account in their projection, over this period is projected to be 150, or 30 per year. The 3,450 AFDC recipients in 1996 loom in comparison to these net total employment and unemployment statistics, regardless of the educational credentials.

The increased competition for welfare recipients arising from the unemployed, estimated independently of the Welfare Reform Act, tends to follow these spatial patterns of actual job growth. Memphis and the Gulf Coast lead the way in the percent increase in the number of unemployed persons seeking jobs at 11.28% and 10.67%, respectively. The remaining LMAs, including Greenville, tend to follow suit accordingly (see Table 3). While these estimates tell us about the percent change in the number of unemployed persons, the rate of unemployment, also expressed as a percentage, is not likely to change much across Mississippi's LMAs. The only exceptions, and these unfortunately tend to fit an emerging pattern, involve the Memphis, Greenville, and Vicksburg labor markets. Memphis and Vicksburg are likely to see their unemployment rate decline just a bit (-2.31% and -3.51%, respectively). However, the Greenville LMA is projected to see its unemployment rate increase by almost two percentage points (1.85%) over this five-year period. There are certainly errors associated with any forecast and forecasting method, and these projections may indeed be off the mark, but they tend to coalesce around a pattern for the Greenville LMA that does not present an optimistic outlook for jobs and job growth.

While the projected increases in total employment give an upper-limit to the prospects that former TANF beneficiaries will face, it is likely that the “job-matching” of educational credentials to general requirements by employers will have a more important role in determining job placement in the labor markets across the state. The projections in the net growth of jobs by occupational grouping are shown in Table 4. These include the number of jobs in 1997, 2002, and the percent change over the five-year period among the categories of white-collar, skilled, and unskilled workers. Figure 8 contains a pie-chart map display of the percent growth in these job classes for counties within each LMA. Together, this table and figure summarize an important aspect of the differences across LMAs that vary substantially in their levels of urban influence.

As the results summarized in Table 4 show, there are different patterns of growth projected for white-collar, skilled, and unskilled jobs in Mississippi's labor market areas. These tend to vary by the level of urban influence present within the LMA. First, there is relatively small levels of growth likely to occur in jobs requiring unskilled workers, on the order of 2.44% statewide. White-collar and skilled jobs are likely to grow at more than three times that rate, at 8.28% and 7.69% respectively. There are some key spatial differences across LMAs in these projected patterns of growth. Some LMAs will likely lose jobs with unskilled requirements. This largely just includes the Greenville LMA, although Columbus (-.01%) and Vicksburg (-.45%) technically have negative growth projects for unskilled workers. For skilled workers, the job growth prospects will be brightest in the Memphis and Biloxi-Gulfport-Pascagoula LMAs as they will grow by 13% and 10% respectively (see Table 4). For white-collar workers, these same LMAs are projected to grow respectively by 15% and 11% over the 1997-2002 period. The Tupelo and Hattiesburg labor markets are scheduled to also grow by about 10% during this period in white-collar employees.

When the county-to-county variation in the composition of occupation-specific job growth is examined in Figure 8, it also appears that there are key spatial concentrations of growth that may factor into the welfare-to-work equation. For instance, in the Clarksdale LMA, much of the county-level growth will be in white-collar jobs whereas for the LMA, as a whole, white-collar growth will be on par with that for skilled-workers (about 5%). At

the same time, there are counties within that LMA which are dominated by either skilled or unskilled growth. Other labor market areas in the state also fit this pattern, such as Greenville, Vicksburg, and Columbus. What this pattern suggests is that there will be growth among these three occupational categories such that it tends to combine to yield a more moderate pattern of growth in these LMAs. However, that is how the labor market concept works, to yield a consolidate pattern of change based upon the daily commuting behaviors of workers traveling to and from their places of employment.

Because it would be difficult to effectively imagine a complete portrait of projected change in the state's labor markets without mention of the industrial structure and organization, we also provide estimates of change by major industry. Summarized in Table 5, we use the percent change in employment from 1997-2002 as the metric by which to gauge industrial shifts within these LMAs, based upon estimates of employment in the base year of 1997. The high points of these results summarized in Table 5 suggest that national and state trends already underway will continue to materialize in these labor market areas. Relative stability in agricultural employment is projected with some losses in the Delta but gains in the Northeastern part of the state. Manufacturing will continue to decline in every LMA except on the Gulf Coast. Clear gains are likely to be realized in transportation, service, and in the government sectors. The FIRE sector, containing the finance, insurance and real estate industries, will also exhibit increases in jobs. Most of these projected increases in industries dominated by white-collar workers are situated in LMAs with greater levels of urban influence, such as metro areas like Biloxi-Gulfport-Pascagoula, Tupelo, and Memphis. Higher-paying skilled jobs in the manufacturing sector are declining. The service sector has generally lower-paying jobs but the wage-rate is more variable by occupation (e.g., white-collar vs. unskilled). Nevertheless, with the Gaming industry making a significant impact on the service sector, there is unified growth in this sector throughout the state's LMAs.

From the previous analyses, it is clear that Mississippi's labor markets vary in several ways on indicators pertaining to the welfare-to-work transition. There are different total TANF caseloads and differentiated educational credentials among TANF recipients, varying employment growth patterns, and differences among labor markets in the occupational composition and growth trajectories. However, it is the spatial connections among these indicators that is the most critical aspect of this study. The extent of the spatial mismatch among TANF recipients' educational credentials and the general occupational requirements of employers conditions the "job-matching" outcomes in these LMAs. We now turn to that portion of our analysis.

The approach used in this study is based upon the one illustrated by Howell (1997c) who developed an "absorption index" based upon the ratio of AFDC/TANF recipients in 1996 to the projected job growth over the succeeding three years. Thus, the higher this ratio, the greater the number of welfare recipients to the net job growth in the immediate future. Where the ratio is precisely one, there will be one net additional job available during the period being considered. If it is less than one, then there will be correspondingly more than one job-per-AFDC recipient. If greater than one, there will be inversely fewer than one job-per-AFDC recipient. He used both county and LMA-level analyses in his study but felt that the labor market area results were more meaningful results. However, he used total employment growth as the denominator for this crude "labor market absorption index" and, thus, it does not make any explicit attempts to "match" the educational credentials of the 1996 AFDC/TANF cohort to the general job requirements of the net job growth in the labor market itself. We attempt to improve upon that work through the gross categories of white-collar, skilled, and unskilled job types as "matched" with educational credentials of post-secondary school, high school only, and less than high school, respectively. (See METHODS section for details on this crude job-matching index.) Because the number of AFDC/TANF recipients in an area varies across these three educational levels, a refined job-matching index was constructed by "weighting" the components of the crude job-matching index by the proportions of AFDC/TANF recipients within each educational level. This "composite" job-matching index reflects our best estimate of the absorption capacity that each labor market area has for successfully merging these welfare beneficiaries into the paid labor force.

We have summarized these results in Table 6 and in Figures 9 through 12. Because of the programmatic interest in “work-fare” training efforts, we present both the crude and composite job-matching ratios as well as the individual crude ratios for each educational level. As noted above, three LMAs are projected to experience a net job loss during the 1999-2002 period: Columbus, Greenville, and Vicksburg. This produces a negative job-matching ratio, of course, but one that is essentially uninterpretable and only reflects the ratio of AFDC/TANF recipients to the projected job loss. In this event, we have labeled the spatial displays of the data shown in Table 6 as simply a “projected job loss” in these three LMAs.

Statewide, the 1996 cohort of AFDC/TANF recipients will out-number new job growth by a ratio of 2.13 or, put another way, there will be just over two AFDC recipients from the 1996 cohort per net new job during the succeeding five-year “amortization” period for lifetime benefits. This statewide crude job-matching index does not take the imbalance among the three levels of educational credentials held by the 1996 cohort. Once this crude job-matching index is “weighted” by the educational levels (see above), the composite index is 0.95, suggesting that there will be almost one net new job per AFDC recipient in 1996. Of course, welfare recipients will not be the only ones competing for such jobs and this is not an indication that the state’s various labor markets will “completely” absorb such individuals. However, it is instructive to have some rational set of expectations about this transition. In that regard, these results suggest that, as we might have anticipated, those with more education will face better odds of being successfully absorbed into the state’s paid labor force. The crude job-matching indexes indicate that there will be 1.78 AFDC/TANF recipients who do not have a high school diploma per each net new unskilled job over the five-year period. By stark contrast, these crude job-matching indexes are 0.26 and 0.09, respectively, for skilled (high school or equivalent) and white-collar (post-secondary) job growth. Clearly, at the state level, there are significant issues for the 1996 cohort without at least a high school diploma in becoming part of the paid labor force. However, jobs tend to be held locally and the statewide picture denies the reality of important spatial differentiation across local labor markets in Mississippi.

Turning to these issues, we can see that the composite job-matching index varies quite a bit across the state’s local economies (see Figure 9). While the fate of the three LMAs with projected total job losses is clearly negative, the Greenwood labor market area has a composite index of 7.01 AFDC/TANF recipients per net new job. Areas of the state such as the LMAs of Jackson, McComb, Laurel, and Meridian have between one and two beneficiaries per new job during the period in question. The remaining LMAs, including Memphis, Tupelo, Hattiesburg, and the Gulf Coast, all will fare much better in terms of the sheer odds of their AFDC/TANF beneficiaries finding jobs which generally match their educational credentials. The composite job-matching indexes for these three LMAs, as shown in Table 6, are all below 0.75 which indicates that is projected to be about 1.33 jobs which “match” each AFDC/TANF beneficiary in these areas. The Corinth LMA has a composite index of 0.77 which effectively also puts them in a similar position. Thus, for the overall “job-matching” capacity of Mississippi’s labor market areas, there is quite a bit of spatial variation. There appears to be two effective problems: one is, simply, the poor outlook for net employment growth in the Columbus, Greenville, and Vicksburg LMAs while the other is a spatial “mismatch” between the types of new jobs likely to be produced relative to the general education requirements. The LMAs of Clarksdale perhaps faces this challenge more than others around the state but Jackson, McComb, Meridian, and Laurel are not far behind.

The assessment of the crude job-matching indexes separately by education level of AFDC/TANF recipients helps identify where the most serious challenges are for the welfare-to-work transition.

In Figure 10, the job-matching index for white-collar jobs and post-secondary education level AFDC/TANF recipients is shown. In no case is there more welfare beneficiaries with post-secondary schooling than net new white-collar jobs. There is a particularly more optimistic set of odds for those AFDC/TANF beneficiaries with post-secondary credentials living in either the Memphis (effectively DeSoto County in this case) or the Tupelo LMA as the job-matching indexes are very small. Table 6 shows that this reflects a relatively large number of new white-collar jobs in each of these two LMAs. Even with an index of less than 1.0, the Greenville LMA faces the

most difficult challenge among it's post-secondary AFDC/TANF recipients, due largely to the relatively small number of white-collar jobs being forecast for the period 1997-2002. This might, however, result in the these recipients becoming underemployed rather than not unemployed.

The picture for skilled jobs and AFDC/TANF recipients tends to largely parallel that for white-collar jobs. Figure 11 shows that it is the Greenville LMA that faces the most difficult odds in generating net new skilled jobs relative to their resident AFDC/TANF beneficiaries who hold high school diplomas or equivalent. In fact, these beneficiaries in the Greenville labor market hold about a two-to-one (2.14) margin over new growth in skilled positions. Once again, this also ignores other competitors for these skilled jobs. The most optimistic odds for successful welfare-to-work within the segment of the 1996 TANF cohort who already held high school degrees appear to be in the Memphis an Tupelo LMAs. The Gulf Coast, in the Biloxi-Gulfport-Pascagoula and Hattiesburg LMAs, and the Corinth area follow suit. These results, while slightly less optimistic, clearly parallel those for white-collar job growth and the "job-matching" absorption capacity of Mississippi's local labor markets.

Where the least optimistic picture lies in this job-matching scenario involves the least formally educated welfare recipients, those with less than a high school degree or equivalent, and projected new growth in unskilled positions. Figure 12 displays the spatial variation in the job-matching index for this segment of the 1996 AFDC/TANF cohort. Having previously noted the LMAs with a projected job loss in unskilled jobs—Columbus, Greenville, and Vicksburg—we can readily identify Clarksdale as another LMA with a higher ratio than others. There will be over 13 welfare recipients with less than a high school education for each net new unskilled job (see Table 6). The Laurel and McComb LMAs are the next highest, each with slightly less than five per job. As noted in the analysis for the other two educational levels, the Memphis and Tupelo LMAs, coupled with the Gulf Coast LMAs of Biloxi and Hattiesburg, appear to be in a position to fare the best in the general matching of types of jobs to welfare recipients in the labor market.

## Childcare Availability and Capacity in Labor Market Areas

Where physically or mentally possible, holding a job is one of the priorities in the Personal Responsibility and Work Opportunity Reconciliation Act. But holding a job requires more than simply there being a position available, locating it, and competing successfully for the opening. Performing on the job on a continual basis is a crucial aspect of permanent employment. The AFDC program was designed to provide assistance to adults with dependent children, most of whom are women. The critical issue of what to do with these small children while the (former) AFDC recipient is at work—not that parents who do are not welfare beneficiaries don't face the same dilemma—is one of the barriers to a sustainable welfare-to-work transition.

In this section, we examine the availability and capacity of licensed childcare in Mississippi. Using data from the Mississippi Department of Health's Childcare Licensure Database, we located these childcare establishments via geocoding procedures incorporating address-matching routines (ESRI 1997). Where licensed facilities could not be successfully located, we were still able to include the record in our county-level tabular analyses (shown below). While this database does not include all childcare arrangements, the use of facilities licensed by the State means that they have met certain childcare accreditation standards mandated by the state and, therefore, are likely to render higher-quality care than others (see Howell and Wade 1990).

Our objectives are to, first, examine the spatial distribution of licensed childcare facilities across the state with a special focus on the rural-to-urban patterning of their location. The second objective is to analyze the current operating capacity of the licensed childcare facilities in the State. With the 1996 AFDC/TANF cohort, as well as successive ones, being transitioned off of the welfare rolls with many competing for gainful employment, is there enough capacity in the existing childcare system to accomodate those who would choose to make use of

this system? While we cannot fully answer this question, our analysis is a necessary beginning. The issue involves both the capacity and the proximity of licensed childcare to the former-AFDC/TANF beneficiary.

The spatial distribution of licensed childcare in Mississippi is shown in Figure 13. With the USDA "urban influence" classification for counties as a base-map, the point data on childcare facilities is rather clear. "Quality" (as ascertained through licensure) childcare is more concentrated in cities but not all of these cities are in the most urban areas. As the level of urban influence declines, so does the density of licensed childcare establishments. It appears that the three metropolitan areas have significantly greater concentrations of childcare facilities, following a well-worn fact of business in that markets tend to drive service. Metropolitan areas tend to have a higher population and this market principal probably drives much of what can be seen in Figure 13. These patterns do not differ appreciably from the study a decade earlier by Howell and Wade (1990).

The county data were further summarized by Labor Market Area in Table 7. The capacity of each LMA is characterized by several computations displayed in this tabular summary. The maximum licensed capacity reported by the Department of Health for the State is 100,817 "slots" for children. At last count, these licensed "positions" for children were being utilized at 64% (i.e., 64,519 children were occupying these 100,817 "slots"). Theoretically, this gives an estimated 36,298 openings across the state in licensed childcare facilities. Given that, by definition to qualify, virtually all 1996 AFDC/TANF recipients had at least one dependent child, there was a potential "demand" by that population of at least 21,843 (or 60% of these openings). If 1996 AFDC/TANF recipients had more than one dependent child, say two, there would suddenly be a need of an additional 20% in childcare openings. While this exercise makes for an interesting initial assessment, the state-level analysis does not help us understand whether there is a "spatial match" between available quality childcare and the welfare-to-work transition.

The LMA variation in the number of "openings" in licensed childcare centers shown in Table 7 is considerable. The Jackson metropolitan LMA has twice the number of openings (> 10,000) than does the next nearest labor market, that of another metropolitan area, Biloxi-Gulfport-Pascagoula, which has room for about 5,200 additional children to reach maximum capacity. Other LMAs follow a declining pattern, ending with the non-metro Laurel (641 openings) and Corinth (638) labor markets. The degree to which these childcare facilities are operating at their rated capacity is expressed as a percentage in this table. The LMA which has the estimated highest percentage of rated capacity is the non-metro Meridian at 81% and the lowest is the metropolitan Memphis (DeSoto County) area at 51%.

The spatial variation in the proportion of vacancies in licensed childcare establishments can be perhaps better visualized through the county-level map in Figure 14. This pie-chart map shows the percent that all the openings in licensed facilities in the county are of the rated maximum capacity. Figure 14 also displays the actual number of estimated vacancies within each county. (For a few counties, no data is available.) It is evident from inspecting this map that there are also spatial variations within the LMA itself. However, there are no distinct patterns which parallel lines of urban influence. We might expect, for instance, that counties in the metropolitan "fringe" (or suburbs) would tend to be operating a near-capacity due to the middle-class concentrations of dual-career couples and single-parents. Alternatively, the inner-city of Jackson might be operating at a high capacity rate. However, none of these ideas appear to meaningfully describe the spatial patterning in Figure 14. We can see 25% or better vacancy-rates in the counties of the Jackson MSA as well as in those of the Memphis LMA. A similar pattern can be seen on the Gulf Coast, although Hancock County has a small vacancy rate and number. For non-metropolitan counties with only nominal urban influence, the vacancy rate fluctuates generally without spatial distinction.

The main issue for welfare reform, of course, is whether the vacancies are in proximity to AFDC/TANF recipients who, in general, must find employment. Without point-data on the location of welfare beneficiaries, however, one approximation is through the ratio computed in Table 7. For each LMA, the ratio of vacancies in

licensed childcare facilities to the number of 1996 AFDC/TANF cohort members (assuming one child per adult) yields a crude rate. This rate indexes the potential for the licensed childcare facilities to meet the potential demand by welfare recipients if each one chose this childcare arrangement. If this ratio is 1.0, then the number of vacancies matches this estimate of welfare "demand," with fluctuations above indicating a greater likelihood of meeting the demand and the converse for those below that value. The LMAs of Greenville, Clarksdale, and Meridian all fall below 1.0, indicating a pattern that we observed regarding employment "absorption" capacity. The Delta labor markets tend to fall below what this analytical scenario would expect in order to meet the demand of the welfare-to-work transition. The pattern is not inconsistent with the even more dramatic results obtained by Howell and Wade (1990) who identified the Delta region of the state as the area in which "there are at least 1,500 additional [emphasis theirs] pre-school children who need daycare service but who are not currently in such a facility...a similar pattern ..occurs for school-age children" (1990: 18).

On the other end of the spectrum, the Tupelo LMA appears to be in the best position to accommodate this 1996 AFDC/TANF cohort's childcare needs through licensed facilities. With a ratio of the vacancies to welfare recipients of 5.12, the Tupelo area substantially leads the Memphis (DeSoto County) LMA (3.42) and the Corinth LMA (3.04) in "carrying capacity" for accommodating children dependent upon adult welfare beneficiaries. The LMAs which seem to have the poorest chances for labor market absorption—Greenville, Clarksdale, and Columbus—also fare poorer in terms of the capacity of the local licensed childcare system to accommodate their potential needs for family support. This is a pattern which we will return to in the Conclusions section but, with the "vacancy rates" displayed in Figure 14, it would not be obvious that there could be a need for additional "carrying capacity" in childcare without examining the spatial coincidence of the childcare system and the welfare reform process.

We need more careful analyses of these matters but the studies by Howell and colleagues (Howell and Wade 1990; Howell and Mason 1991a,b), coupled with this preliminary assessment, strongly suggest that the childcare system in Mississippi is an important part of building a sustainable welfare-to-work transition process. Based upon these studies, the childcare system in the State needs to be more thoroughly examined and potential economic catalysts might be considered in target-areas where the public investments would prove to yield returns in more successful exits from the welfare rolls.

### Access to Transportation in Labor Market Areas

Another important element of a sustainable welfare-to-work transition is access to transportation with which to get to and from work. Not surprisingly, for employed parents with dependent children, personal access to transportation can be a critical household management issue as well. In Mississippi, public mass transportation has only a very limited availability; largely present only in Jackson (JATRA). As in many rural areas in the U.S., access to transportation is largely through private automobiles. An important element of transportation access is that, with everything else equal, a tight job market would mean that job-searching strategies would need to be optimized for greater access to the search "territory" that is the labor market itself. Thus, in the LMAs where the employment forecast is bleak, the need for access to a personal vehicle for transportation is even greater than where jobs are more plentiful.

We examine the characterization of the labor market areas in Mississippi for their capacity to support the welfare-to-work transition only indirectly. Because of a lack of information on the transportation access in the household of each individual AFDC/TANF cohort member, we are left to use aggregate data which may not render an accurate picture for these welfare recipients. However, we only infer differences in the odds for access to transportation in each LMA.

The numbers of households within each LMA in 1997 that does not have access to at least one automobile is

shown in Table 8. Included in this table also is the total number of households, the AFDC/TANF cohort count in 1996, the composite “job-matching” index, and whether an Interstate highway passes through the LMA. Almost 11 percent of all households in the state are estimated to be without an automobile for use (112,544 out of 970,420). The absolute numbers across each LMA tends to follow the population size as shown in Table 8. Those LMAs where a job-loss is projected, including Columbus, Greenville, and Vicksburg, have an estimated 23,179 households without access to a private automobile. We have no specific knowledge of how many of these households had AFDC/TANF recipients residing within them. However, given that the poor tend to not have cars at the same rate as those in higher income ranges, it is very likely that some of them were on the AFDC/TANF rolls during 1996. It is also important to note that two of these three LMAs (Columbus, Greenville) do not have Interstate access, a crude indicator of job-searching capacity, given access to personal transportation or a “ride” with someone else.

As also shown in Table 8, the variations in the LMAs with and without Interstate access also suggest another mechanism by which urban influence can organize the welfare-to-work transition. However, this element of the data can be better visualized in Figure 15. This map displays several elements of these data, along with some supplementary information. It contains a basemap of the USDA Urban Influence classification scheme, augmented with the MSA and LMA boundaries, that we've used throughout this study. The major roadways comprised of the Interstates and U.S. Highways are overlaid on top of the base-map. This layer gives the viewer a sense of the transportation “connectivity” associated with the urban influence classification taxonomy. A pie-chart of the proportion of households without private automobiles is layered on to each county in the state. Although this map contains enough information so as to border on being visually “busy,” it assists us in trying to understand the spatial relationships among these data.

It appears that the connection between the degree of urban influence and the proportion of households without private automobiles is a modest one, at best. By comparing the core counties of the MSAs with those on the fringe but still within the same LMA, we find that there is a slightly larger slice of the pie exhibited by the surrounding “fringe” counties (e.g., see the Jackson MSA and LMA counties). A similar pattern, perhaps stronger, can be observed in the Memphis labor market area. However, this pattern is less obvious on the Gulf Coast. In the Delta LMAs of Greenville and Clarksdale, the tendency is decidedly for more households to be without private automobiles and it seems to matter little whether an Interstate intersects the county's boundaries or not in this pattern. In the Northeast section of the state, including the Tupelo and Corinth LMAs, the tendency is for households to have private automobiles in greater proportions that in some other areas. As was the case with Interstates, the presence of a U.S. Highway in a county seems to have almost no bearing on the percent of households without private automobiles. Thus, we can conclude from the albeit indirect analyses summarized in Table 8 and in Figure 15, that the degree of urban influence in a county and labor market area seems to not be related to the degree to which households in general are without access to personal transportation. However, we do note that there is a spatial coincidence between the LMAs with the bleakest outlook for employment growth and with the most severe challenges for matching AFDC/TANF beneficiaries to jobs which match their educational training to those with higher proportions of households without private automobiles. The explicit connection between this coincidence and micro-level household data must await the appropriate data with which to test these hypotheses.

## CONCLUSIONS

The 1996 Welfare Reform Act (PRWORA) institutes a maximum sixty-month “life-time” benefit window for TANF block-grant recipients, involving TANF beneficiaries actually finding paid employment somewhere in the labor force. We believe that this welfare-to-work transition constitutes the most important element of the

welfare reform initiative among states in the U.S. because it reflects the most tenuous element of the “social contract” set by Congress in legitimating the PRWORA. For Mississippi, a state steeped in a long-term high poverty rate by U.S. standards but the recent beneficiary itself of a growth-oriented economy, the success of this process constitutes an important social laboratory for the grand experiment that is the current welfare reform initiative. In many ways, the 1996 cohort of welfare recipients constitutes a vital part of the experiment as they are the first-impact group for the welfare reform package adopted by the legislation. Thus, this time and the place of Mississippi yields an attractive spatiotemporal setting for examining elements of this welfare-to-work transition.

As part of a larger study, we examined in this report three key aspects of the transition-to-work portion of welfare reform in Mississippi and related them to the potentially uneven realization of sustainability that may be associated with the rural-urban continuum. Using USDA's recent taxonomy of “urban influence” for Mississippi counties as a baseline social ecology, we examined the following three issues.

One, we estimated the prospects for local labor markets to “absorb” the 1996 cohort of TANF recipients by “matching” their current educational credentials to the projected growth in jobs within specific minimum educational levels over the successive five-year period (1997-2002). This built on our previous work (Howell 1997c) which documented dramatic spatial variation in the crude “absorption capacity” of labor market areas in Mississippi to handle this cohort of TANF recipients. Because childcare arrangements and transportation are two critical elements for sustaining the transition-to-work by families on welfare in the face of available employment opportunities, we also examined the characterization of local areas to meet those needs. Two, childcare facilities in each county within the labor market area were identified and their spatial distributions plotted so as to ascertain the relative availability of these services for TANF recipients. The “carrying capacity” of the existing licensed childcare system was examined to see the extent to which it can meet the prospective needs of TANF recipients who move off of welfare. Alternatively, what is the extent to which it would need to be expanded, perhaps through a public catalyst program effort? Three, the availability of private automobiles at the household-level within counties was used as a proxy for the availability of transportation. The spatial proximity of households to major road and highway systems is likely to be an effective indicator of “transportation access” in a rural-oriented state such as Mississippi. We utilized this approach to indirectly identify the potential access that TANF beneficiaries would have in their job-search strategies to find employment.

Our findings give rise to some key insights in understanding the labor market areas in Mississippi and their capacity to successfully “absorb” welfare beneficiaries who must move off of public support. We found that there is significant variation in the state's LMAs in this “absorption” capacity. There is a clear challenge facing the Delta labor markets around Greenville and Clarksdale and also in the Columbus area. These LMAs were projected to suffer net job losses such that job-search strategies for TANF beneficiaries in the 1996 cohort will perhaps need to reach beyond their resident labor market areas to successfully find employment. The ability of these TANF beneficiaries to find employment that generally “matches” their educational skills is a vital part of the employment process. When we constructed a composite “job-matching” index that attempted to quantify this relationship, the results suggest that there will be almost one net new job per member of the 1996 AFDC/TANF cohort. However, we hasten to add that these welfare beneficiaries are only part of the sector of prospective applicants for this job growth. Welfare beneficiaries from other cohorts, in-migrants from other states and areas within Mississippi, as well as persons changing jobs in the same labor market are all competitors for these new jobs. Thus, this statewide figure is merely somewhat of a statistical illusion for the real activity of job-searching by welfare beneficiaries.

The LMA-to-LMA comparisons perhaps tell a more realistic story about these prospects for successful welfare-to-work transitions. The major areas that will appear to experience much easier transitions include the Memphis, Tupelo, Hattiesburg, and Gulf Coast areas. The Jackson, McComb, Meridian, and Laurel LMAs are areas that are not far from the most challenging areas of Greenville, Clarksdale, and Columbus in terms of generating

jobs that generally “match” the educational credentials of their 1996 AFDC/TANF beneficiaries.

The picture regarding two important elements of sustainability in the welfare-to-work transition, childcare and access to effective transportation, was also mixed. In general, the core labor market areas in the Delta region, Greenville and Clarksdale, tended to have a weaker capacity in its licensed childcare system to deal with the potential needs of the 1996 AFDC/TANF cohort. By contrast, the Tupelo labor market area was at the other end of the spectrum as it appeared to have a much greater capacity for expanded enrollments in the existing licensed childcare facilities, relative to the potential needs of the 1996 AFDC/TANF recipients residing there. Our results are generally compatible with the studies conducted by Howell and colleagues at the beginning of this decade (Howell and Wade 1990; Howell and Mason 1991a,b). Thus, we believe that a significant expansion of the licensed childcare system, especially in the core labor market areas of the Delta region, may be a significantly beneficial factor in facilitating the welfare-to-work transition.

The transportation access provided by owning a personal automobile and the local roadways being buttressed by the Interstate and U.S. Highway systems did not proved to be substantially associated with the spatial variations in the 1996 AFDC/TANF population in Mississippi. At best, this was only an indirect examination of the issue of transportation access as a means to facilitate a sustainable transition off of the welfare rolls. We conclude that micro-level data on the households of TANF recipients must be used in conjunction with the aggregate-level data used in this study in order to more fully address this issue.

In summary, this study has studied the ability of Mississippi's labor market areas to generate net new jobs that can be successfully competed for by AFDC/TANF beneficiaries in the 1996 cohort. We experimented with generally matching this cohort's educational credentials to the crude classes of jobs represented by the categories of: unskilled, skilled, and white-collar workers. What we find is that labor market areas around the state vary widely in their apparent capacity to create net job growth that “matches” the educational credentials of this cohort. Moreover, the labor market areas of the state that are likely to be the most challenged by this “spatial mismatch” are also the ones with the weakest “carrying capacity” for licensed childcare facilities as well as having the lowest density of high-access transportation arteries flowing throughout them. While this study begs for more in-depth analyses and with more refined data, its findings are consistent with other studies which suggest the following. Public policy should pay close attention to the coordination of actions which will facilitate these labor markets in the state by taking critical actions and coordinate current programs which will reduce and alleviate these problems.

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