

Low-Wage Worker Characteristics: Implications For Children In Poverty

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Abstract

Low-wage workers and their related demographic and socio-economic characteristics are of major consideration in almost all industrialized nations. The resulting wage differential that exists between skilled and unskilled labor is substantial, making the topic of low-wage worker characteristics a major global concern. Historically, the challenges in conducting a research study on low-wage workers have been noteworthy. For decades, it was not possible to accurately estimate the cost-of-living across major metropolitan areas that covered multiple state lines in terms of consumer prices. Most scholars agreed, however, that rural poverty and living standards differed significantly from urban poverty and standard of living. In the United States, and only within the last two decades, have there been strides in the ability to calculate the costs of living across major metropolitan areas in a consistent measure. This paper provides the framework of wage-rate and poverty-level determination to assist in the critical analysis of the interrelationships among poverty and low-wage worker characteristics.

I. INTRODUCTION

The labor market in the United States is characterized by wage gaps between skilled and unskilled labor (also known as the dual, two-tiered or segmented labor market).¹ The extant two-tiered labor market fosters inequality and heightens poverty. In previous studies, central city core poverty in the 1980s initially was higher than the poverty rate of the metropolitan area or the nation as a whole (between 20 to 40 percent higher) regardless of economic growth in the metropolitan area; yet over time, as housing segregation mitigated, central city poverty has slowed and presently follows similar growth patterns of the Metropolitan Statistical Area (MSA).²

Poverty, the byproduct of economic inequality, has three major components: (1) central city core vs. suburban regional location components, (2) labor market and labor force participation rate components; and (3) household demographics components. The elements of three components serve as the initial characteristics associated with low-wages. The rise in the one-parent family, changes in the labor force participation patterns of households, and the outsourcing of jobs to foreign counties have also contributed to an increase in poverty.

Madden (2000) noted differences between poverty rates in the central cities in comparison to the larger Metropolitan Statistical Areas (MSAs) between 1969 and 1989. She

¹United States Economy Overview in the *Central Intelligence Agency World Fact Book 2008*.
<https://www.cia.gov/library/publications/the-world-factbook/geos/us.html> .

²Paul A. Jargowsky, "Stunning Progress, Hidden Problem: The Dramatic Decline of Concentrated Poverty in the 1990s." (2003; repr., Washington, DC: Brookings Institution, 2008), 1.

reported that poverty rates for MSAs in general are lower than the national average because of more affluent suburbs. She attributed the wage gap, i.e., the increasing gap between skilled and unskilled wages, deindustrialization, economic growth, regional location, and family demography as perpetrators of the urban – suburban wage gap, household income inequality and wage inequality. She noted that by improving the number and quality of jobs for lower wage workers there would be a decrease in poverty. An earlier paper by Madden and Daniels (1995) noted that policies that allow for exclusionary zoning, subsidize new construction or encourage fragmentation of metropolitan governments should be modified to further reduce poverty across jurisdictions.³ In reviewing the Madden (2000), Madden and Daniels (1995) and Bernick (2005) research studies, the factors that have contributed to poverty in the United States can be enumerated as follows to answer the question:

What are some of the factors that have contributed to poverty in the United States?

1. Poverty Rate Thresholds: The level of income established by the Federal and/or State governments that help to determine public assistance eligibility.
2. Demographics: Proportion of female-headed households, number of wage-and-salary earners, multiple wage earners in a household, being African-American, being over 65, being an immigrant, being a farm worker, and number of persons per household.
3. Skill Composition: Median years of education (ages 25-64 years old), worker motivation, educational inequality or inaccessibility, English language proficiency, literacy skills, and limited knowledge of advanced processes.⁴
4. Labor Market Characteristics: Wage and salary inequality, employment-to-population ratio, years of work experience, and horizontal and vertical mobility.
5. Job Quality: Hours of classroom instruction or professional development, on-the-job training, working conditions, occupational hazards, workmanship techniques and practices.
6. Personal Traits: Being a long-term welfare recipient, former welfare recipient, or ex-convict; mental and health disabilities; and drug addiction or juvenile delinquency.⁵
7. Other characteristics: Working in the central city, residing in the central city, population growth, per capita income, residing in low-income areas, and residential segregation inequality.

What are some of the characteristics associated with low-wage workers in the U. S.?

Previous research has yielded the following classifications of low-wage worker characteristics: age, education, skills, demographics and ethnicity (Toussaint-Comeau 2007). Other factors characterizing low-wage employment include:

³Janice Fanning Madden and Robert C. Daniels, “Changes in the Distribution of Poverty across and within U.S. Metropolitan Areas: 1979-89,” (November 9, 1995).

⁴Michael S. Bernick, *Job Training That Gets Results: Ten Principles of Effective Employment Programs* (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2005), Chapter 6.

⁵Bernick, *Job Training That Gets Results*, 14.

1. **Work Environment:** Poor working conditions; numerous workplace safety violations; environmental toxins; high rates of sexual harassment; non-unionized work environments; abusive work environments; high workplace injury rates; irregular work shifts; limited number of workplace amenities; number of work hours determined by employer without consulting the employee; mandatory overtime; arbitrary disciplining and frequent firing.
2. **Medical Benefits and Paid Leave:** No sick leave; no annual leave; no family leave; no employer-provided medical benefits engendering less healthy workers; no on-site child care; no dependent spending accounts; no flextime; no telecommuting; and no job sharing.
3. **Lack of Political Power:** Inability of workers to challenge management decisions; inability of workers to challenge government policies relating to work rules and taxes; inability of workers to negotiate decent wages; and inability of workers to obtain legal counsel for discrimination and related issues.
4. **Networks:** Low-wage workers lack informal networks for promotions and advancement; tend to have higher turnover rates and greater job insecurity; and immigrants are often excluded from the “mainstream” because of language or cultural barriers.

Outline of the Study

In this study, three sampling frames will be developed. The three sampling frames presented will consist of a review of low-wage rural counties (The Rural Sampling Frame); low-wage metropolitan counties (The Metropolitan Area Sampling Frame); and central city core counties of major metropolitan areas (The Central City Core Sampling Frame). The three sampling frames will then be combined to yield a representative database of low-wage urban, suburban and rural workers.⁶ Demographic and employment characteristics will be provided along with recommendations and implications for children in poverty will be considered.

II. SAMPLING METHODOLOGY

2.1.1 The Rural Sampling Frame

- All Rural Counties in the United States, n=695 or 22.1% of all U.S. counties.
- Low-Wage Rural Counties, n=431, or 62.0% of all rural counties.

2.2.1 The Metropolitan Area Sampling Frame

⁶Low wage occupations can include: agricultural workers, auto mechanics, business machine repair, car salesmen, carpenters, child care workers, cashiers, clerical skills, doormen, handyman, food preparation, hotel and motel front desk workers, housecleaning, janitorial and housekeeping, laundry and maintenance workers, medical secretary, nursing home aides, nursing, reception, nutritionists, restaurant workers, retail salespersons, room attendants, security guards, telemarketing, television repair, upholstering, waitressing, and welding.

- 28 Major Metropolitan Areas exist in the United States in which the U.S. Bureau of Labor Statistics (BLS) reports the Consumer Price Index – Urban Consumer (CPI-U).⁷
- 210 Metropolitan Counties and Independent Cities comprise the 28 major metropolitan areas based on their 2008 U.S. Department of Housing and Urban Development metropolitan area boundaries, n=210 or 6.7% of all U.S. counties.

2.3.1 Central City Core Sampling Frame

- 81 Central City Core Counties are the economic center of the 28 Major Metropolitan Areas of the United States, n=81 or 2.6% of all U.S. counties make up the central city core areas.
- Low-Wage Central City Core Counties, n=55, or 26.2% of all major metropolitan area counties.⁸

2.1.2 The Rural Sampling Frame

In the rural sampling frame, the 695 counties that have an Urban Influence Code (UIC) defined by the U.S. Department of Agriculture Economic Research Service of 7, 10, 11 and 12 were used to determine rural counties of the United States.⁹ Shown in Table 1, the 41.7 percent of the rural counties were in the Midwest Census Region.¹⁰ The mid-western states of Kansas, Nebraska, and South Dakota have a disproportionately large number of rural counties.

In Table 1, the U.S. Census publication of *County Business Patterns* was used for the years 2005 and 2006 to develop a dataset of rural counties in the United States. Of the 695 rural counties, 684 of these counties had recorded wage-rate data values for 2006. From the 684 rural counties, the median wage rate was \$11.63 and the average wage rate was \$12.24.

⁷The U.S. Bureau of Labor Statistics (BLS) defines Primary Sampling Units (PSUs) for each state. BLS produces the CPI-U by placing into strata the PSUs and classifying them by population size with a designation of A, B or C. The methodology defines the areas as large metropolitan (A), small metropolitan (B), or non metropolitan urban (C). The PSUs with populations of over 1.5 million persons are also classified as “self-representing” for the purposes of calculating the CPI area indexes. For the purposes of this study, the self-representing large metropolitan areas are: Anchorage, Atlanta, Baltimore, Boston, Chicago, Cincinnati, Cleveland, Dallas, Denver, Detroit, District of Columbia, Honolulu, Houston, Kansas City, Los Angeles, Miami, Milwaukee, Minneapolis, New York, Philadelphia, Phoenix, Pittsburgh, Portland, San Diego, San Francisco, Seattle, St. Louis, and Tampa. For non metropolitan areas, PSUs are defined by county. See also <http://www.bls.gov/opub/hom/pdf/homch17.pdf>.

⁸ Central city core counties of “self-representing” major metropolitan areas have a higher wage rate than all other counties of the United States. For the purposes of this study, any county of a major metropolitan area with an average wage of under \$23 per hour is classified as a low-wage central city core county.

⁹ The following Urban Influence Codes (UICs) define the extent of “rurality” among counties of the United States. All counties with the codes of 7, 10, 11, and 12 are rural counties. The UIC definitions are changed every 10 years. According to the 2003 UIC definitions, 695 of 3,141 counties were rural.

UIC 7 = Noncore adjacent to small metro area and does not contain a town of at least 2,500 residents.

UIC 10 = Noncore adjacent to micro area and does not contain a town of at least 2,500 residents.

UIC 11 = Noncore not adjacent to metro or micro area and contains a town of at least 2,500 residents.

UIC 12 = Noncore not adjacent to metro or micro area and does not contain a town of at least 2,500 residents.

Source: U.S. Department of Agriculture. Economic Research Service.

¹⁰ The Midwest consists of the states of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin.

The 2006 weighted average poverty thresholds for a family of five comprised of related children was \$12.29 per hour and the weighted average poverty threshold for a family of nine or more was \$21.26 per hour.¹¹ Based on these figures, this study defines wages under \$12.30 per hour to be “low-wage” by linking the 2006 poverty level guidelines with the average wage rate for each county.¹² This translates to \$13.15 per hour using constant March 2008 dollars as measured by the CPI-U.¹³ Central city core counties will be treated differently (See section 2.3.2). A low-wage worker is one who works at least 37 weeks per year and whose total family income falls below the federal poverty level (Toussaint-Comeau 2007). From this definition of low-wage, 431 counties were of low-wage in the rural areas.

Wage differentials were calculated between the rural counties, low-wage rural counties, and the state average wage rate. It was determined that low-wage rural counties had the lowest rate of pay of any geographic area, earning about 36% less than all employees working within the state in general. Rural workers earned on average 25% less than the state average wage.

In Table 2, the wage rates by industry were defined using the 2002 North American Industry Classification System (NAICS). In rural areas, the primary minimum-wage industries included Arts, Entertainment, Recreation (NAICS Code 71) and Accommodation and Food Services (NAICS Code 72).¹⁴ Low-wage rural employment is present in the industries of (1) NAICS Code 72, (2) NAICS Code 71, in addition to the following NAICS 2-digit industry sectors in ranked order from lowest average wage to highest average wage: (3) Other Services (except Public Administration) (NAICS Code 81); (4) Retail Trade (NAICS Code 44); (5) Administration and Support, Waste Management and Remediation Services (NAICS Code 56); (6) Real Estate and Rental and Leasing (NAICS Code 53); (7) Educational Services (NAICS Code 61); (8) Health Care and Social Assistance (NAICS Code 62); (9) Professional, Scientific, and Technical Services (NAICS Code 54); and (10) Construction (NAICS Code 23). More specifically, in Table 3, the 3-digit NAICS codes can be used to further define low-wage employment in rural areas by industry.¹⁵

¹¹ U.S. Census Bureau., *Housing and Household Economic Statistics Division*. Poverty Thresholds for 2006 by Size of Family and Number of Related Children Under 18 Years.

¹² U. S. Bureau of the Census. *Poverty Thresholds 2006*. *Federal Register* 71, no. 15 (January 24, 2006) 3848-49.

¹³ For the CPI-U calculations use <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiiai.txt>.

¹⁴ Minimum wage rates (of under \$6.50 per hour) for rural 3-digit industries in ranked order include: NAICS 512 – Motion Picture and Sound Recording Industries; NAICS 722 – Food Services and Drinking Places; NAICS 721– Accommodation; NAICS 813 – Religious, Grantmaking, Civic, Professional, and Similar Organizations; NAICS 485 – Transit and Ground Passenger Transportation; NAICS 451 – Sporting Goods, Hobby, Book, and Music Stores; NAICS 453 – Miscellaneous Store Retailers; NAICS 448 – Clothing and Clothing Accessories Stores; NAICS 447 – Gasoline Stations; and NAICS 445 – Food and Beverage Stores.

¹⁵ In low-wage rural areas, the industries with above average number of persons employed are Retail Trade, Health Care and Social Insurance, Manufacturing, Accommodation and Food Services, and Construction. More specifically the primary industries for employment in low-wage rural areas, Food Services and Drinking Services, Ambulatory Health Care Services, Gasoline Stations, Specialty Trade Contractors, Accommodation, and Professional, Scientific, and Technical Services provided approximately 39% of total employment in low-wage rural counties throughout the United States. Source: Calculations based on census data provided by the Federal Financial Institutions Examination Council.

2.2.2 The Metropolitan Area Sampling Frame

In the metropolitan area sampling frame, the U.S. Bureau of Labor Statistics (BLS) provides area indexes of inflation for the 28 MSAs in which it calculates the CPI-U for the entire MSA. Such areas include the densely populated major metropolitan areas of Baltimore-Washington, Chicago, Los Angeles, Miami, and New York City.

The challenge of comparing wages and incomes across metropolitan areas has been mitigated over the last decade by the ability of the Bureau of Labor Statistics to calculate the Consumer Price Index for these 28 large metropolitan areas.¹⁶ These MSA and CPI calculations enable researchers to focus on inter-metropolitan variations in costs of living reflected in the wage rates prevalent in self-representing urban core counties, suburban and non-metropolitan urban counties.

In this study, wage rates were calculated for each selected county, MSA, and corresponding state based on the March 2006 *Current Population Survey* and the 2006 *County Business Patterns* (released July 2008). Both are publications of the U.S. Bureau of the Census.

From the 210 MSA counties, 46 counties were designated to be “low-wage” counties having average wage rates below \$12.30 per hour in 2006, and 164 were designated as “medium wage” for the purposes of this study, with average wage rates for all industries below \$21.26 per hour. Moreover, the average wage rate for all 210 large metropolitan area counties was \$17.16 per hour (see Table 4).¹⁷

The self-representing MSAs and the metropolitan counties associated with these MSAs were used to determine wage-and-salary differentials. MSA salaries were more competitive than rural salaries, but were on average, less competitive than the overall state average-wage-per-job. Overall, the 210 urban counties and independent cities in the 28 major metropolitan areas represent about 42 million workers (see Table 4).

From these 210 counties or independent cities, 42 in 2005 and 35 in 2006 were categorized as low-wage counties for the purposes of this research study. Combining the counties for the two years, the urban sampling frame creates a dataset of 46 counties that are urban counties of large metropolitan areas, yet categorized as low-wage.

These low-wage counties were not central city counties, but were instead urban fringe counties. For example, in the State of Colorado, two counties in the Denver MSA (Elbert County and Park County) were low-wage counties according to the definition created for this research paper. But when the Home Mortgage Disclosure Act (HMDA) census statistics were obtained for these counties,¹⁸ the majority of the counties were classified according to the HMDA as

¹⁶The U.S. Department of Commerce Bureau of Economic Analysis (BEA) Regional Economic Accounts also publishes a similar series on “Metropolitan Statistical Areas Average Wage per Job (dollars) [CA34 – Wage and Salary Summary].” The employment estimates in the BEA series are counted according to the job, not the person. In both series, however, if a person holds more than one job then they will be counted for each job held.

¹⁷For the purposes of this research study, the wage rate was calculated from *County Business Patterns 2006*, a publication of the U.S. Census Bureau. The March 2006 variable amounts for quarterly wages, number of employees, and total payroll were used to calculate the average wage per worker. No measure exists in the CBP database, however, for the corresponding number of years of work experience associated with the *County Business Patterns* payroll and employment numbers.

¹⁸FFIEC Home Mortgage Disclosure Act (HMDA) Census Data Products. <http://www.ffiec.gov/hmda>.

middle income instead of low income. Furthermore, when exploring the income status of the various census tracts in these counties, 95.37% of the census tracts were classified as moderate or middle income in 2008. On average, low-wage counties of major metropolitan areas were categorized as middle income areas.

Suburban fringe counties are metropolitan area counties that are not part of the central city core but have been annexed into the MSA as the metropolitan boundary definitions have expanded. Suburban fringe counties provide the labor pool necessary to service the extremely populated central cities of the self-representing large metropolitan areas. These suburban fringe counties are not low-income counties, but are instead counties in which the wage-and-salary employment does not sustain the incomes of the residents. During economic downturns, residents in fringe suburban areas must then resort to entrepreneurship, rental incomes, commuting, etc. to sustain their livelihoods. Out of the 46 low-wage urban counties, 39 urban counties, or 85 percent, were low-wage and contained no upper-income census tracts. These 39 counties will now be labeled as the suburban fringe sampling frame (see Table 2).

Revisiting Table 2, the wage rates by industry were defined for the suburban fringe sampling frame. In suburban areas, the primary minimum-wage industry is Accommodation and Food Services (NAICS Code 72).¹⁹ Low-wage employment is also prevalent in the industries of Retail Trade (NAICS Code 44); Administration and Support, Waste Management and Remediation Services (NAICS Code 56); Educational Services (NAICS Code 61); Arts, Entertainment, and Recreation (NAICS Code 71); and Other Services (except Public Administration) (NAICS Code 81).

2.3.2 The Central City Core Sampling Frame

Urban counties with the highest populations in 2000 were rank ordered in descending order. The top 20 counties in terms of population are: Los Angeles County, CA (Los Angeles); Cook County, IL (Chicago); Harris County, TX (Houston); Maricopa County, AZ (Phoenix); San Diego County, CA (San Diego); Kings County, NY (New York City); Miami-Dade County, FL (Miami); Queens County, NY (New York City); Dallas County, TX (Dallas); Wayne County, MI (Detroit); King County, WA (Seattle); New York County, NY (New York City); Philadelphia County, PA (Philadelphia); Cuyahoga County, OH (Cleveland); Bronx County, NY (New York City); Allegheny County, PA (Pittsburgh); Hennepin County, MN (Minneapolis); St. Louis County, MO (St. Louis); Hillsborough County, FL (Tampa); and Fairfax County, VA (District of Columbia). In total, the 28 major metropolitan areas had 210 urban counties associated with their boundaries and 81 central city core counties. The central city core counties are extremely large with over 200 low-income census tracts existing in the some of the largest inner cities.

¹⁹Minimum wage 3-digit industries in the suburban fringe areas include: NAICS 113 – Forestry and Logging; NAICS 315 – Apparel Manufacturing; NAICS 337 – Furniture and Related Product Manufacturing; NAICS 447 – Gasoline Stations; NAICS 448 – Clothing and Clothing Accessories Stores; NAICS 451 – Sporting Goods, Hobby, Book, and Music Stores; NAICS 453 – Miscellaneous Store Retailers; NAICS 519 – Other Information Services; NAICS 624 – Social Assistance; NAICS 713 – Amusement, Gambling, and Recreation Industries; NAICS 721 Accommodation; and NAICS 722 Food Services and Drinking Places.

Unlike the metropolitan area sampling frame with 46 low-wage counties, this central city core sampling frame has no low-wage counties, (according to the \$12.30 criterion) but has numerous low-income census tracts within each county. These low-income census tracts were extracted to provide information on the central city core areas. Furthermore, the definition of low-wage was raised to less than \$23 per hour to accommodate the higher wages that exist in the central city core and the corresponding higher living costs. In the final database, there were 55 counties designated as central city core counties with average wage rates of less than \$23 per hour.

III. NON-PARAMETRIC STATISTICAL TESTS

In the draft version of this article presented at the Oxford Round Table on *Child Poverty: Educational Initiatives and Consequences* (July 2008), a random control sample of metropolitan counties was created. This control sample consisted of counties outside of the 28 major metropolitan areas of the United States. All 50 states, the District of Columbia and all metropolitan counties with UIC codes of 1 or 2 were eligible for the control sample.²⁰ Forty-two (42) counties were selected for the control sample and the following non-parametric tests were conducted.

3.1 The Kruskal-Wallis Test

To determine whether the multivariate statistical model would be feasible, three non-parametric statistical tests were conducted on the rural, metropolitan, and central city core sampling frames. The first statistical test was the Kruskal-Wallis Test (the non-parametric counterpart of the one-way ANOVA test), which was used to test: (1) The average wage, in the 209 urban counties of selected MSAs in 2005 (vs. 210 in 2006), was tested against (2) the average wage in the random control group of counties using all MSAs with the UIC codes of 1 and 2, versus (3) the corresponding state average wages for the random control group. The Kruskal-Wallis K returned an observed value that was greater than the chi-square critical value and therefore, the null hypothesis was rejected. In other words, the wages in the selected urban counties, compared to the random set of urban counties, and then compared to their state average wage were not the same wage rate. It can be concluded that each of the three wages are distinct units of measurement and should be analyzed independently.

3.2. The Mann-Whitney Test

The Mann-Whitney U Test, which is the non-parametric counterpart of the t-test, was used on (1) the random sample of MSAs versus (2) the low-wage urban counties of the large metropolitan areas. The Mann-Whitney U test revealed there was a difference between the wages in the low-wage counties and the average wage rate in the MSAs, in general. The Mann-Whitney U Test

²⁰UIC=1 designates a large metropolitan area of 1+ million residents. UIC=2 designates a small metropolitan area of less than 1 million residents. Source: U.S. Department of Agriculture Economic Research Service *2003 Urban Influence Codes*.

also revealed that there is no difference between the average wage in a low-wage rural county and the average wage in a low-wage metropolitan fringe county. In sum, living in a low-wage county regardless of urban or rural, adversely impacts employment prospects, and by extension enhances child poverty.

3.3 Wilcoxon Matched-Pairs Signed Rank Test

The Wilcoxon Matched-Pairs Signed Rank test was used to observe the difference between the MSA wages and the corresponding average wage for the state as a whole. The observed Z of 2.77 was only slightly larger than the critical Z of 2.576. Therefore, the difference between the mean wages of an MSA and the corresponding average wage for the entire state was only slightly statistically significant at the two-tailed 99% statistical level.

Applying this same line of reasoning to the low-wage urban counties adjacent to the most populous major metropolitan areas, it is evident that there is a difference between these low-wage urban counties and the average state wage. This difference is separate and distinct from any popularized urban core theory. By using the entire county instead of the neighborhoods or census tracts within the county, one can reveal the bias towards poor people living in these areas. The Wilcoxon test also revealed a significant difference between the average wage of a low-income rural county and the average wage of the state.

IV. MODELING INTERGENERATIONAL POVERTY

There are a number of challenges involved in comparing poverty-level income and poverty rates across MSAs. One important challenge is that poverty-level income is defined for the nation as a whole and does not reflect any inter-metropolitan variation in the cost of purchasing food or other essentials (except for the States of Hawaii and Alaska). The poverty rate, therefore, overstates the level of need in areas with lower price levels relative to those with higher price levels.²¹

4.1 Data Definitions and Variables List

Extracted from existing literature, a multivariate model of low-wage worker characteristics could include the following variables:

1. The percentage change in the poverty rate.
2. The proportion of female-headed households.
3. The number of wage earners in the household.
4. The ethnicity of the household.
5. The age distribution of the wage earners, particularly if any earner is over age 65.
6. The immigration and citizenship status of the wage earner.
7. The number of persons in the household.
8. Median education of the wage earner(s).

²¹ Madden and Daniels, "Distribution of Poverty across U.S. Metropolitan Areas 1979-89."

9. The number of years of work experience of the wage earner(s).
10. The employment-to-population ratio.
11. The proportion of workers living in the central city.
12. The proportion of residents in the central city.
13. The population of the metropolitan area, county and urban core.
14. Per capita income within the metropolitan area, county and urban core.
15. The inflation rate of the MSA or state.
16. The land area of the central city.

An additional listing of data definitions of selected variables is provided in Table 5. The rationale for the inclusion of these variables into a model on low-wage worker characteristics is the belief that wages and salaries account for the majority of income accruing to low-wage households.

V. EVIDENCE ON WORKER CHARACTERISTICS AND POVERTY

Using the data reduction method of principal component analysis, the variables listed in Table 5 were reduced to only two principal components: The first principal factor in determining poverty was demographics, in general and the second component was labor market characteristics. These two are instructive in yielding regression results based on the available data.

5.1 Wage Rate Determination

The principal component analysis enabled data reduction of the large number of variables into those appearing in Table 5. Then multivariate regression modeling was developed using the 2006 Wage Rate as the dependent variable. Data from (1) the central city core counties, (2) the low-income urban counties, and (3) all corresponding rural counties (in the states in which counties from the central city core and urban sampling frames appeared) were placed in a larger dataset consisting of 308 counties from the three sampling frames. The best-fit model on Wage Rates is:

$$\text{Wage} = \beta_0 + \beta_1 \text{AA} + \beta_2 \text{Adopt} + \beta_3 \text{Est} + \beta_4 \text{Fem}_{\text{NS}} + \beta_5 \text{Hisp} + \beta_6 \text{HouseAge}_{\text{Yrs}} + \beta_7 \text{Male}_{\text{NS}} + \beta_8 \text{Minority}\% + \beta_9 \text{Pop}_{18-64} + \beta_{10} \text{Poverty}\% + \beta_{11} \text{Rent}\$ + \beta_{12} \text{WhHHInc} + \varepsilon_t$$

where,

AA	=Black/African American Population
Adopt	=Adopted Child in Family Household Population
Est	=Number of Establishments
Fem _{NS}	=Female Population 25 and Over with No Schooling
Hisp	=Hispanic/Latino Population
HouseAge _{Yrs}	=Median House Age
Male _{NS}	=Male Population 25 and Over with No Schooling
Minority%	=Minority Percentage

Pop ₁₈₋₆₄	=Population 18 to 64 Years
Poverty%	=Poverty Level Percent
Rent _{\$}	=Median Gross Rent
WhiteHHInc	=White Median Household Income

5.2 Poverty Rate Determination

The principal component analysis enabled data reduction of the large number of variables into those appearing in Table 5. A multivariate regression model was developed using the Poverty Rate as the dependent variable. Data from (1) the central city core counties, (2) the low-income urban counties and (3) all corresponding rural counties (in the states in which counties from the central city core and urban sampling frames appeared) were placed in a larger dataset consisting of 308 counties from the three sampling frames. The model on Poverty Rate can be illustrated as follows:

$$\text{Poverty}\% = \beta_0 + \beta_1\text{AA} + \beta_2\text{AS} + \beta_3\text{Emp} + \beta_4\text{Fem}_{\text{Age}} + \beta_5\text{FS}_{50-99} + \beta_6\text{Hisp} + \beta_7\text{HH}_{\text{PovLevel}} + \beta_8\text{HH}_{\text{NoIncome}} + \beta_9\text{HH}_{\text{SelfEmpInc}} + \beta_{10}\text{Minority}\% + \beta_{11}\text{Payroll} + \beta_{12}\text{Pop}_{65+} + \beta_{13}\text{Rent}_{\$} + \varepsilon_t$$

Where, AA	=Black/African American Population
AS	=Asian Population
Emp	=Total Number of Employees
Fem _{Age}	=Female Median Age
FS ₅₀₋₉₉	=Number of Firms with 50 to 99 Employees
Hisp	=Hispanic/Latino Population
HH _{PovLevel}	=Households with Income Less than Poverty Level
HH _{NoIncome}	=Households with No Wage or Salary Income
HH _{SelfEmpInc}	=Households with Self Employment Income
Minority%	=Minority Percentage
Payroll	=Payroll, Gross (\$)
Pop ₆₅₊	=Population 65 and Over
Rent _{\$}	=Median Gross Rent

The results of the regression analysis appear in Tables 6 and 7. Although only 74% to 75% of the variation in the dependent variables (Wage Rate and Poverty Percentage) can be explained by the independent variables, the results go a long way in providing some rationale for modern-day poverty, its causes, consequences and implications for wage determination and economic inequality.

VI. IMPLICATIONS AND CONCLUDING REMARKS

This article addresses the challenges in modeling complex, dynamic relationships with cross-sectional data methods. By stratifying the available data accurately, however, it was discovered that there is no statistically significant difference between a suburban (urban fringe) county and a rural (emerging urban) county in terms of average wage rates. Larger MSAs tend to have higher poverty rates, whereas MSAs with higher population and income growth rates tend to have lower rates of growth of poverty.

Other critical findings include but are not limited to the following: (1) Median education in years enhances skill composition and increases the skill level of the overall population, therefore making the workers in certain areas more attractive to employers. (2) Since labor market participation is the primary source of income for most households, the quantity and quality of jobs in an area enhances the average earnings of all households. (3) It is also assumed that the quantity of jobs available in a jurisdiction is reflected in the labor force participation rates of residents. And (4) Tighter labor markets typically increase the quantity of jobs available in the low-wage sectors relative to the higher-skilled labor sectors.

Based on the level of dedication needed to complete a research study of this type, it is apparent that there is still work to be done in the development of databases and modeling techniques to adequately model the inter-generational relationships among poverty and low-wage worker characteristics.

Table 1. Comparisons of Rural Wages, Low-Wage Rural Wages, and State Average Wages by Census Region and Division, 2006

Census Region	n	Rural Counties Average Wage	n	Low-Wage Rural Counties Average Wage	n	State Average Wage	Rural County Wage Differential to State	Low-Wage Rural County Wage Differential to State
Northeast	14	\$14.95	4	\$11.32	14	\$19.64	-24%	-42%
Midwest	285	\$11.39	207	\$10.42	289	\$19.64	-42%	-47%
South	241	\$12.18	148	\$10.47	243	\$16.76	-27%	-38%
West	144	\$13.74	72	\$10.59	149	\$16.45	-16%	-36%
Total	684	\$12.24	431	\$10.47	695	\$16.38	-25%	-36%

Census Division	n	Rural Counties Average Wage	n	Low-Wage Rural Counties Average Wage	n	State Average Wage	Rural County Wage Differential to State	Low-Wage Rural County Wage Differential to State
New England	7	\$16.02	1	\$11.96	7	\$17.60	-9%	-32%
Mid Atlantic	7	\$13.88	3	\$11.10	7	\$21.67	-36%	-49%
East North Central	48	\$12.88	22	\$11.04	48	\$18.43	-30%	-40%
West North Central	237	\$11.09	185	\$10.35	241	\$15.37	-28%	-33%
South Atlantic	86	\$12.20	53	\$10.99	86	\$17.32	-30%	-37%
East South Central	67	\$12.44	39	\$10.24	67	\$14.97	-17%	-32%
West South Central	88	\$11.96	56	\$10.14	90	\$17.56	-32%	-42%
Mountain	127	\$13.83	67	\$10.56	132	\$16.09	-14%	-34%
Pacific	17	\$13.06	5	\$10.91	17	\$19.18	-32%	-43%
Total	684	\$12.24	431	\$10.47	695	\$16.38	-25%	-36%

Table 1. Provides average wage calculations by Census Region and Census Division for rural counties and low-wage rural counties compared to the average state wage. The results reveal that rural wages per job are about 25% lower than the state average wage. Low-wage rural county wages per job are about 36% lower than their respective average state wage. Source: Compiled using *County Business Patterns: 2006*.

Table 2. Comparison of 2-Digit Industry Wages by Rural, Urban and Suburban Fringe, 2006

NAICS Code	Rural Counties, 2-Digit Industry Title	Average Hourly Wages 2006	Standard Deviation	Number of Counties	Average Hourly Wages (\$ July 2008)	
23	Construction	\$12.033	\$6.603	487	\$13.992	
44	Retail Trade	\$8.031	\$1.733	623	\$9.338	
53	Real Estate and Rental and Leasing	\$9.028	\$4.588	217	\$10.497	
54	Professional, Scientific, and Technical Services	\$11.589	\$5.012	372	\$13.475	
56	Administrative, Support, Waste Management	\$8.932	\$4.110	214	\$10.386	
61	Educational Services	\$9.959	\$3.055	51	\$11.580	
62	Health Care and Social Assistance	\$11.146	\$2.675	549	\$12.960	
71	Arts, Entertainment, and Recreation	\$6.528	\$5.769	123	\$7.591	
72	Accommodation and Food Services	\$4.241	\$1.908	508	\$4.931	
81	Other Services (except Public Administration)	\$7.008	\$2.342	504	\$8.149	
99	Miscellaneous Services	\$5.177	\$3.998	39	\$6.020	
n=684 Rural Counties						
NAICS Code	Urban Counties of Major Metropolitan Areas, 2-Digit Industry Title	Average Hourly Wages 2006	Standard Deviation	Number of Counties	Average Hourly Wages (\$ July 2008)	Urban Wage Advantage over Similar Jobs in Rural Areas
44	Retail Trade	\$10.595	\$1.679	206	\$11.664	24.91%
56	Administrative, Support, Waste Management	\$12.178	\$3.514	196	\$13.407	29.08%
61	Educational Services	\$11.602	\$3.779	161	\$12.773	10.30%
71	Arts, Entertainment, and Recreation	\$10.080	\$6.578	160	\$11.097	46.18%
72	Accommodation and Food Services	\$5.975	\$1.698	206	\$6.577	33.38%
81	Other Services (except Public Administration)	\$10.641	\$3.369	203	\$11.715	43.75%
99	Miscellaneous Services	\$8.215	\$4.897	81	\$9.044	50.23%
n=210 Urban Counties of Major Metro Areas						
NAICS Code	Suburban Fringe Counties of Major Metropolitan Areas, 2-Digit Industry Title	Average Hourly Wages 2006	Number of Counties	Average Hourly Wages (July 2008)	Average Hourly Wages Major Metro Counties	Low-Wage Suburban to Major Metropolitan Wages
44	Retail Trade	\$8.882	37	\$9.778	\$10.595	84%
53	Real Estate and Rental and Leasing	\$9.682	26	\$10.659	\$15.444	63%
56	Administrative, Support, Waste Management	\$8.908	29	\$9.807	\$12.178	73%
61	Educational Services	\$7.915	12	\$8.713	\$11.602	68%
62	Health Care and Social Assistance	\$11.496	36	\$12.656	\$15.546	74%
71	Arts, Entertainment, and Recreation	\$6.416	15	\$7.064	\$10.080	64%
72	Accommodation and Food Services	\$4.484	35	\$4.936	\$5.975	75%
81	Other Services (except Public Administration)	\$7.679	34	\$8.454	\$10.641	72%
99	Miscellaneous Services	\$5.891	10	\$6.486	\$8.215	72%
n=39 Suburban Counties						

Table 2. Provides average wage calculations, standard deviations, and constant dollar wages for 2008 by 2-digit North American Industry Classification System (NAICS) codes for the rural, urban, and suburban fringe sampling frames. The results reveal that urban wages per job are between 10 and 50 percent higher than similar jobs in rural areas. Residents living in a low-wage, low-income neighborhoods of suburban fringe counties should expect the residents in those areas to have wages 16 to 37 percent lower than the metropolitan area as a whole. Source: Compiled by Author (July 2008).

Table 3. Rural Wages by 3-Digit Industry, 2006

NAICS Code	Number of Counties	Average Wage by Industry (\$ 2006)	Average Wage by Industry (\$ 2008)	3-Digit Industry Title
624	78	\$6.53	\$6.87	Social Assistance
713	51	\$6.87	\$7.22	Amusement, Gambling, and Recreation Industries
452	98	\$6.87	\$7.22	General Merchandise Stores
315	1	\$6.94	\$7.30	Apparel Manufacturing
812	216	\$7.48	\$7.87	Personal and Laundry Services
314	2	\$8.02	\$8.43	Textile Product Mills
561	88	\$8.28	\$8.71	Administrative and Support Services
442	60	\$8.47	\$8.91	Furniture and Home Furnishings Stores
623	110	\$8.66	\$9.11	Nursing and Residential Care Facilities
531	105	\$8.67	\$9.12	Real Estate
711	8	\$9.25	\$9.73	Performing Arts, Spectator Sports, and Related Industries
487	4	\$9.26	\$9.74	Scenic and Sightseeing Transportation
712	6	\$9.30	\$9.78	Museums, Historical Sites, and Similar Institutions
611	51	\$9.96	\$10.47	Educational Services
532	66	\$9.99	\$10.51	Rental and Leasing Services
444	391	\$10.04	\$10.56	Building Material & Garden Equipment & Supplies Dealers
811	288	\$10.12	\$10.64	Repair and Maintenance
443	91	\$10.22	\$10.75	Electronics and Appliance Stores
339	10	\$10.68	\$11.23	Miscellaneous Manufacturing
236	228	\$10.76	\$11.32	Construction of Buildings
238	305	\$10.83	\$11.39	Specialty Trade Contractors
423	24	\$10.91	\$11.47	Merchant Wholesalers, Durable Goods
515	6	\$11.26	\$11.84	Broadcasting (except Internet)
326	7	\$11.30	\$11.88	Plastics and Rubber Products Manufacturing
562	33	\$11.47	\$12.06	Waste Management and Remediation Services
323	11	\$11.54	\$12.14	Printing and Related Support Activities
511	22	\$11.56	\$12.16	Publishing Industries (except Internet)
541	372	\$11.59	\$12.19	Professional, Scientific, and Technical Services
446	156	\$11.69	\$12.29	Health and Personal Care Stores
441	393	\$11.96	\$12.58	Motor Vehicle and Parts Dealers
113	36	\$12.02	\$12.64	Forestry and Logging
454	101	\$12.07	\$12.69	Nonstore Retailers
311	35	\$12.17	\$12.80	Food Manufacturing

Table 3 provides the array of low-wage industries, their average wages in 2006, and the average wage in constant 2008 dollars using the 3-digit North American Industrial Classification (NAICS) codes for the rural sampling frame. The results reveal that certain industries are minimum wage, whereas a large number of industries are low-wage.

Source: Compiled using U.S. Bureau of the Census, *County Business Patterns: 2006* and the U.S. Department of Commerce, Bureau of Economic Analysis, *GDP Implicit Price Deflator (Seasonally Adjusted): 2006-A to 2008-A*.

Table 4. Urban Wages for 28 Major Metropolitan Areas, 2006

Metropolitan Statistical Area (MSA)	State Code	Average. Hourly Wage	Number of Counties	Number of Workers	State Average Wage	MSA Wage as % of State Wage
1 Anchorage	AK	\$18.616	2	150,290	\$19.610	95%
2 Atlanta-Sandy Springs-Marietta	GA	\$14.865	28	2,204,005	\$18.241	81%
3 Baltimore-Towson	MD	\$18.109	7	1,120,924	\$19.959	91%
4 Boston-Quincy	MA	\$24.336	3	1,054,251	\$23.492	104%
5 Chicago-Naperville-Joliet	IL	\$18.257	8	3,487,476	\$20.965	87%
6 Cincinnati-Middletown,	OH-KY-IN	\$14.669	15	927,832	\$17.410	84%
7 Cleveland-Elyria-Mentor	OH	\$16.696	5	965,951	\$17.410	96%
8 Dallas-Plano-Irving	TX	\$16.072	8	1,814,250	\$19.126	84%
9 Denver-Aurora	CO	\$18.082	10	1,089,586	\$19.303	94%
10 Detroit-Livonia-Dearborn	MI	\$21.729	1	663,804	\$18.830	115%
11 Honolulu	HI	\$16.540	1	359,474	\$15.855	104%
12 Houston-Sugar Land-Baytown	TX	\$16.224	10	2,116,579	\$19.126	85%
13 Kansas City	MO-KS	\$14.100	15	914,103	\$19.126	74%
14 Los Angeles-Long Beach-Glendale	CA	\$18.505	1	3,895,886	\$21.901	84%
15 Miami-Miami Beach-Kendall	FL	\$18.505	1	868,560	\$16.351	113%
16 Milwaukee-Waukesha-West Allis	WI	\$18.167	4	789,858	\$16.738	109%
17 Minneapolis-St. Paul-Bloomington	MN-WI	\$17.113	13	1,660,777	\$19.429	88%
18 New York-White Plains-Wayne	NY-NJ	\$24.221	11	4,662,764	\$29.640	82%
19 Philadelphia	PA	\$23.012	5	1,785,815	\$18.487	124%
20 Phoenix-Mesa-Scottsdale	AZ	\$15.927	2	1,638,331	\$17.188	93%
21 Pittsburgh	PA	\$14.835	7	1,056,137	\$18.487	80%
22 Portland-Vancouver-Beaverton	OR-WA	\$16.755	7	920,161	\$17.120	98%
23 San Diego-Carlsbad-San Marcos	CA	\$20.450	1	1,205,862	\$21.901	93%
24 San Francisco-San Mateo-Redwood City	CA	\$30.048	3	967,702	\$21.901	137%
25 Seattle-Bellevue-Everett	WA	\$21.854	2	1,259,559	\$19.769	111%
26 St. Louis	MO-IL	\$13.484	16	1,262,357	\$16.942	80%
27 Tampa-St. Petersburg-Clearwater	FL	\$14.952	4	1,026,277	\$16.351	91%
28 Washington-Arlington-Alexandria	DC-VA-MD-WV	\$19.148	20	1,919,177	\$29.765	64%
Weighted Averages		\$17.160	210	41,787,748	\$17.754	94%

Table 4 provides average wage calculations by Metropolitan Statistical Area for urban counties of the 28 major metropolitan areas of the United States. Overall, the average wage was \$17.16 in the 210 urban counties where 42 million workers reside. The average corresponding state wage was \$17.75. The results reveal that some MSA wages are higher than the state average wage and some are lower. Overall MSA wages are about 94% of the corresponding average state wage. Source: Author compiled using *County Business Patterns: 2006*.

Table 5. Data Definitions and Selected Statistics for Urban Core Areas, Major Metropolitan Areas and Selected MSAs, 2008

Data Definitions and Variables List Age, Ethnicity, Education, Household, Poverty, and Population Indicators	Low-Income Urban Core Census Tracts	Total Major Metropolitan Area MSAs	All MSAs in Selected States	Urban Core as % Major Metro	Major Metro as % All MSAs
Female Median Age	31	36	37	85%	98%
Male Median Age	43	34	34	126%	99%
Person Median Age	29	35	36	84%	98%
Am. Indian Alaskan Native Med Household Inc.	24,174	23,717	222,241	102%	11%
American Indian Alaska Native Population	63,674	490,809	1,709,024	13%	29%
Asian Median Household Income	17,510	45,577	41,933	38%	109%
Asian Population	312,526	5,458,897	9,538,839	6%	57%
Black Median Household Income	19,895	39,719	35,785	50%	111%
Black African American Population	2,926,288	14,565,015	26,588,323	20%	55%
Hispanic Median Household Income	27,664	42,992	40,179	64%	107%
Hispanic/Latino Population Total	2,113,652	16,187,002	32,852,663	13%	49%
White Median Household Income	30,161	49,858	45,999	60%	108%
White Population	1,577,686	60,480,537	178,081,533	3%	34%
Female Pop 25 And Over with 9th Grade Ed.	102,372	705,445	1,915,935	15%	37%
Female Pop 25 And Over with Associates Degree	78,742	2,004,557	5,418,058	4%	37%
Female Pop 25 And Over with Less 1 Yr College	106,237	2,247,761	6,113,937	5%	37%
Female Pop 25 And Over with No Schooling	105,746	572,036	1,198,284	18%	48%
Living in Group Quarters – College Dorms	82,809	449,412	1,602,728	18%	28%
Male Pop 25 And Over with 9th Grade Ed.	91,948	658,467	1,837,129	14%	36%
Male Pop 25 And Over with Associates Degree	55,269	1,589,646	4,261,714	3%	37%
Male Pop 25 And Over with Less 1 Yr College	76,336	1,710,989	4,794,722	4%	36%
Male Pop 25 And Over with No Schooling	91,812	502,428	1,136,093	18%	44%
Households With No Wage Or Salary Income	695,563	6,873,036	19,888,359	10%	35%
Households With Other Income	315,761	3,969,092	11,656,890	8%	34%
Households With Public Assist Income	327,598	1,305,565	3,098,179	25%	42%
Households With Self Employment Income	130,333	3,816,803	10,585,525	3%	36%
Household Count	2,220,078	33,861,215	88,392,338	7%	38%
Adopted Child Family Household Population	42,562	657,385	1,714,866	6%	38%
Household Income Less than Poverty Level	819,752	3,830,240	10,187,996	21%	38%
Median Gross Rent	489	718	650	68%	110%
Median House Age	49	34	35	142%	99%
Minority Percentage	70	38	32	183%	119%
Poverty Level Percent	36	12	13	292%	94%
Poverty Status Total Households	2,220,530	33,869,215	88,392,338	7%	38%
Female Population Total	3,410,073	46,642,984	120,339,717	7%	39%
Female Pop Under 16 Years	941,008	10,288,454	26,307,821	9%	39%
In Group Quarters, Population	261,681	1,936,811	6,554,619	14%	30%
Male Population Total	3,190,314	44,605,019	116,218,830	7%	38%
Population 16 Yrs And Over	4,678,752	69,513,442	182,640,344	7%	38%
Spanish Speaking Pop 18 To 64, Eng. Not Well	343,652	2,058,384	3,632,948	17%	57%
Population 18 To 64 Years	3,908,792	57,463,273	146,298,448	7%	39%
Population 5 To 17 Years	1,524,228	17,135,456	44,615,577	9%	38%
Population 65 And Over	565,867	10,274,927	29,724,815	6%	35%
Population	6,695,340	91,248,003	236,558,547	7%	39%
Urban Population	6,584,488	85,319,932	188,249,308	8%	45%

Source: Federal Financial Institutions Examination Council, HMDA Census Products: 2008.

Table 6. Regression Output for the Wage Rate Model

Dependent Variable: Wage Rate (2006 \$)	Unstandardized	Standard	Standardized	t-statistic	p-value
	Coefficients β		Error		
(Constant)	6.436	0.502		12.812	0.000
Adopted_Child_Fam_Hh_Pop	-0.005	0.001	-0.781	-5.984	0.000
Black_African_American_Population	0.000	0.000	0.281	5.029	0.000
Female_Pop_25_And_Ovr_No_Schooling	0.003	0.001	1.671	3.733	0.000
Hisp_Pop_Total	0.000	0.000	-0.462	-2.468	0.014
Male_Pop_25_And_Over_No_Schooling	-0.005	0.001	-2.313	-5.236	0.000
Median_Gross_Rent	0.010	0.001	0.333	10.073	0.000
Median_House_Age	0.007	0.003	0.073	2.343	0.020
Minority_Percentage	0.018	0.005	0.176	3.959	0.000
Pop_18_To_64_Years	0.000	0.000	1.017	6.416	0.000
Poverty_Level_Percent	0.046	0.012	0.176	3.873	0.000
Total Establishments	0.000	0.000	0.902	10.157	0.000
White_Median_Household_Income	0.000	0.000	-0.129	-3.934	0.000
ANOVA(b)					
	Sum of	df	Mean Square	F	Sig.
Regression	1861	12	155.053	71.199	0.000
Residual	642	295	2.178		
Total	2503	307			
Model Summary(b)					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	0.862	0.743	0.733	1.476	

Table 6. Reveals there is an inverse relationship between adopting a child or a male having no formal schooling and the wage rate. Perhaps, being able to adopt a child is a better indicator of self-employment income and higher wage-and-salary income. Note that this model explains 74.3% of the factors that influence wage rates. Source: Author's Compilation (July 2008).

Table 7. Regression Output for Poverty Level (Percent) Model

Dependent Variable: Poverty_Level_Percent	Unstandardized	Standard	Standardized	t-statistic	p-value
	Coefficients β		Error		
(Constant)	56.913	4.485		12.689	0.000
Asian_Population	0.002	0.000	0.912	6.379	0.000
Black_African_American_Population	0.000	0.000	-0.822	-6.871	0.000
Employees, Number of	0.000	0.000	4.217	4.227	0.000
Female_Median_Age	-0.775	0.086	-0.404	-9.015	0.000
Hh_Income_Less_than_Poverty_Level	0.001	0.001	1.052	2.160	0.032
Hh_With_No_Wage_Or_Salary_Inc	0.002	0.001	2.181	2.663	0.008
Hh_With_Self_Employment_Income	-0.005	0.001	-1.088	-7.444	0.000
Hispanic_Population_Total	-0.001	0.000	-1.998	-7.026	0.000
Median_Gross_Rent	-0.023	0.004	-0.198	-5.447	0.000
Minority_Percentage	0.104	0.019	0.262	5.553	0.000
Establishments_w_50_99_Employees	-0.034	0.015	-1.647	-2.336	0.020
Population_65_and_Over	-0.001	0.001	-1.085	-1.761	0.079
Quarterly Payroll (March 2006)	0.000	0.000	-1.949	-2.521	0.012
ANOVA(b)					
	Sum of				
	Squares	df	Mean Square	F	Sig.
Regression	27776.601	13	2136.662	66.201	0.000
Residual	9488.959	294	32.275		
Total	37265.560	307			
Model Summary(b)					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	0.863	0.745	0.734	5.681	

Table 7. Reveals there is an inverse relationship between female age and poverty, and self-employment income and poverty. Moreover, lower rents are an indication of increased poverty. Also, by increasing employment in medium-sized firms that employ 50-99 employees reduces poverty. Note that this model explains 74.5% of the factors that cause poverty to exist based on the variables available to be included in the model. Source: Author's Compilation.

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