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# Where Race Matters Most:
# Race, Ethnicity and Unemployment in 100 U.S. Metropolitan Areas

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ABSTRACT:

We know that race and ethnicity are significant factors in U.S. labor markets; we also know that the extent of their influence varies from place to place, but the latter is often paid less attention. Taking a closer look at how much race and ethnicity matters from city to city may allow us to identify models and strategies for reducing the influence of race and ethnicity on patterns of unemployment in U.S. society. In this study, I use 2007 American Community Survey data to rank the 100 largest U.S. metropolitan areas on the basis of just how much race and ethnicity bear on patterns of unemployment and find that the concentration of Black population in metropolitan areas is associated with greater race and ethnicity effects on unemployment. Metropolitan area location in the south, racial and ethnic diversity, and unemployment rates seem not to influence the race/ethnicity effect. Additional metropolitan area characteristics are considered.

**Where Race Matters Most: Race, Ethnicity and Unemployment in 100 U.S. Metropolitan Areas**

There is a substantial literature on how race and/or ethnicity impact individuals' chances of success in U.S. labor markets. Those studies often ask, what individual attributes are linked to success in labor markets? We know that race and ethnicity are significant factors in U.S. labor markets; we also know that the extent of their influence varies from place to place, but the latter seems to be paid less attention. Taking a closer look at how much race and ethnicity matters from city to city may allow us to identify models and strategies for reducing the influence of race and ethnicity on patterns of unemployment in U.S. society. In this study, I use 2007 American Community Survey data to rank the 100 largest U.S. metropolitan areas on the basis of just how much race and ethnicity bear on patterns of unemployment and offer some preliminary answers to the question , what metropolitan area characteristics lead race and ethnicity to matter more in some places and less in others?

*Measuring the Impacts of Race on Unemployment from City to City*

In this paper the effects of race and ethnicity on unemployment from city to city are captured by selecting the 100 largest metropolitan areas and, for each, running two logistic regressions predicting unemployment among respondents.[1] The first model includes age, education, nativity, and English language proficiency as covariates, and the second adds a twenty-category race/ethnicity variable to the list. Each model run yields model fit statistics which may be compared to see how much "model fit" is improved by adding race/ethnicity to the model. I have chosen Nagelkerke's Pseudo-R-square as my measure of model fit, but relative improvements to model fit are nearly identical no matter what model fit statistic is employed. By dividing the Pseudo-R-square figure from the second model by the that of the first and subtracting one ($\%_{imprv} = [R^2_{m2}/R^2_{m1}] - 1$),[2] I arrive at the 'percentage improvement to model fit' (PIMF) associated with the addition of race and ethnicity to the model. This operation is carried out for each of the hundred largest metropolitan areas in the U.S. which, ultimately, constitute the data set for this study.

[1] The analyses below include men only. The conference version of the paper will include women either in separate analyses or in a single analysis with sex included as a control variable. There is surprisingly little difference between men and women in terms how race and ethnicity bear on their chances of gaining employment (Emeka 2009).

[2]For instance, when only residents of Bakersfield, California are included in the analysis, model 1 (race and ethnicity not included) yields a Pseudo-$R^2$ of .072. When race/ethnicity is added to the model (2), the Pseudo-$R^2$ increases to .128. Thus, %imprv = (.128/.072) - 1 = .778 or 77.8%. Therefore, the introduction of race/ethnicity into the model increases its overall explanatory power by 77.8%.

**Table 1.** Ten U.S. Metropolitan Areas in which Race/Ethnicity has the Least Impact on Unemployment

| Metropolitan Area | *% improvement w/ addition of race & ethnicity* [a] | | Metropolitan Area | *% pt. difference between expected and observed* [b] |
|---|---|---|---|---|
| Riverside-San Bernardino,CA | 5.8 | | Seattle-Everett, WA | -26.6 |
| Miami-Hialeah, FL | 8.5 | | Portland, OR-WA | -26.2 |
| Portland, OR-WA | 11.0 | | Riverside-San Bernardino,CA | -24.7 |
| Seattle-Everett, WA | 12.4 | | Miami-Hialeah, FL | -24.2 |
| Monmouth-Ocean, NJ | 12.8 | | Monmouth-Ocean, NJ | -21.8 |
| Boston, MA-NH | 13.1 | * | McAllen-Edinburg-Pharr-Mission, TX | -20.5 |
| Columbus, OH | 13.6 | * | Boston, MA-NH | -19.9 |
| Boise City, ID | 13.8 | | Las Vegas, NV | -18.3 |
| Dayton-Springfield, OH | 14.7 | | Knoxville, TN | -16.4 |
| Salt Lake City-Ogden, UT | 15.5 | | Sacramento, CA | -16.2 |

Data Source: 2007 American Community Survey

[a] Percentage improvement to model fit statistic (Nagelkerke's Pseudo R-square) when a 20 category race/ethnicity variable is added to a logistic regression model predicting unemployment on the bases of age, education, nativity, and language.

[b] The difference between expected improvement and observed improvement (above) after correcting for differential effects age, education, nativity and language across U.S. metropolitan areas as well as different sample sizes.

**Table 2.** Ten U.S. Metropolitan Areas in which Race/Ethnicity has the Most Impact on Unemployment

| Metropolitan Area | *% improvement w/ addition of race & ethnicity* [a] | | Metropolitan Area | *% pt. difference between expected and observed* [b] |
|---|---|---|---|---|
| Bakersfield, CA | 78.1 | *** | Bakersfield, CA | 40.0 |
| Tucson, AZ | 70.5 | ** | Greenville-Spartanburg-Anderson SC | 34.5 |
| Greenville-Spartanburg-Anderson, SC | 69.8 | *** | Tucson, AZ | 31.1 |
| Albuquerque, NM | 69.5 | | Omaha, NE/IA | 29.2 |
| New Orleans, LA | 65.5 | ** | New Orleans, LA | 27.3 |
| Daytona Beach, FL | 63.4 | | Milwaukee, WI | 25.4 |
| Omaha, NE/IA | 62.5 | | Albuquerque, NM | 24.5 |
| Raleigh-Durham, NC | 61.3 | *** | Daytona Beach, FL | 24.2 |
| Honolulu, HI | 60.2 | | Raleigh-Durham, NC | 24.1 |
| Milwaukee, WI | 58.8 | *** | Provo-Orem, UT | 23.6 |

Data Source: 2007 American Community Survey

[a] Percentage improvement to model fit statistic (Nagelkerke's Pseudo R-square) when a 20 category race/ethnicity variable is added to a logistic regression model predicting unemployment on the bases of age, education, nativity, and language.

[b] The difference between expected improvement and observed improvement (above) after correcting for differential effects age, education, nativity and language across U.S. metropolitan areas as well as different sample sizes.

Of the these metropolitan areas the PIMF (when race/ethnicity is introduced) is greatest in Bakersfield, California (78%) and least Riverside/San Bernardino, California (6%). Tables 1 and 2 lists the ten metropolitan areas where race and ethnicity bear most heavily on patterns of unemployment and ten more where race and ethnicity seem to matter least. This paper seeks explanations for this variation.

*Explaining Why Race and Ethnicity Matters More in Some Metropolitan Areas than Others*

There are statistical reasons and substantive explanations that may help us make sense of this variation. In preliminary analyses, I found that 'percentage improvement to model fit' (PIMF) was associated with the goodness of fit of model one (race/ethnicity not included) and the sample size for each city. Smaller sample sizes were associated with larger percentage improvements to model fit which may partly reflect sampling error. Larger R-squared statistics for model 1 were associated with larger percentage improvements to model fit when race/ethnicity was introduced. Therefore, the patterns reflected in Table 1 may be little more than statistical artifact. For this reason, I correct the PIMF by regressing it on sample size and model 1 pseudo-R2 in the data set of 100 metropolitan areas and save the residuals to treat as the dependent variable in analyses to follow.

The two panels of metropolitan areas at the right hand side of Table 1 display the ten cities with the most extreme positive and negative residual values. The residuals can be understood as the percentage point difference between the PIMF that is observed and that which is expected based on the sample size and model 1 goodness of fit for each city. Bakersfield, CA, for instance, has an observed PIMF that is 40 points higher than we would expect given its sample size and model 1 goodness of fit, while Seattle has an observed PIMF that is 26 points lower than we would expect on those bases. In all, this correction does little to the change the ranking of metropolitan areas in terms of the influence of race/ethnicity on unemployment. The question becomes what accounts for these metropolitan area-level differences.

It may be tempting to call on cultural accounts of U.S. racism and discrimination in hiring practices. That is, may be that some metropolitan areas have employers who are simply more race-conscious than others. Employers in Seattle or Portland, for instance, may be more color-blind than those in Bakersfield or Greenville, South Carolina. Traditionally, racism and color-consciousness have been associated with the culture of the U.S. Southeast which may lead us to hypothesize that:

**Hypothesis 1:** Race and ethnicity will bear more heavily on unemployment in southern metropolitan areas than in others.

But if employers in the non-Southern cities are faced with a more homogenous set of job candidates they may have less opportunity or motivation to exclude on the basis of race or ethnicity. In the opposite side of that coin, we might hypothesize that:

**Hypothesis 2:** Race and ethnicity will bear more heavily on unemployment in metropolitan areas with greater racial and ethnic diversity.

African-Americans face unique challenges in securing employment (Moss and Tilly 2009; Waldinger and Lichter 2003; Wilson 2009) in U.S. labor markets. If fact, the vast majority (80% or more) of the effects of racial and ethnic stratification on unemployment can be captured simply by knowing who is Black and who is not (Emeka 2009), we may hypothesize that:

**Hypothesis 3:** Race and ethnicity will bear more heavily on unemployment in metropolitan areas with greater concentrations of Black people.

Finally, it may be that the importance of race and ethnicity varies with metropolitan area unemployment rates. We might imagine that where unemployment is very high (where there are many more available workers than there are job vacancies) employers may be more likely to categorically exclude job candidates on the basis of race and ethnicity to streamline hiring processes (Thurow 1975). Under such circumstances we might also imagine majority group workers attempting to safeguard 'their' jobs from racial and ethnic outsiders by way of formal and informal means (Blalock 1967; Bonacich 1972). All of this would lead us to predict that:

**Hypothesis 4:** Race and ethnicity will bear more heavily on unemployment in the metropolitan areas with high unemployment.

These are just a few of the hypotheses which may be tested taking metropolitan area as the unit of analysis and PIMF (adjusted) as the dependent variable.

PRELIMINARY RESULTS

Simple bivariate correlations yield support for only one of the four hypotheses above. There no significant correlation (p = .361) between 'southern location' and the extent to which race bears on unemployment. To test hypothesis 2, I calculated an 'Index of Qualitative Variation' (IQV) which gauges how evenly the population of each metropolitan area is distributed across six major racial/ethnic categories (White, Black, American Indian, Latino, Asian, and Other). The correlation between this variable and dependent variable described above does not quite meet conventional standards for statistical significance (p = .058), and what association there is may reflect the fact that the IQV is influenced in part by the presence of Black people in metropolitan areas. The only statistically significant association evidenced is between '% Black' in metropolitan area and PIMF (R = .27; p = .007). Unemployment rates seem to bear little on the salience of race and ethnicity from city to city (p = .136).

Not surprisingly, percent Black is the only statistically significant predictor in the model when we include them all in a single OLS regression estimation as can be seen in Table 3.

**Table 3.** OLS Regression Predicting the Influence of Race and Ethnicity on Unemployment across 100 U.S. Metropolitan Areas

| | $\beta$ | | S.E. |
|---|---|---|---|
| Metro Area Located in the South | -2.80 | | 3.48 |
| Percentage IQV (0-100) | 0.11 | | 0.09 |
| Percentage of MSA Black | 0.40 | * | 0.17 |
| Percentage of MSA men unemployed | -1.57 | | 1.00 |
| (Constant) | -0.39 | | 8.13 |
| N= | 100 | | |
| Adjusted R-squared | 0.08 | | |

Data Source: 2007 American Community Survey
* p < .05

## CONCLUSIONS AND NEXT STEPS

These analyses have demonstrated that there is a great deal of variation as to how salient race and ethnicity are metropolitan area labor markets. In some metropolitan areas, knowing a person's racial or ethnic identity adds substantially to our ability to predict his or her unemployment; in other cities it does not. In these preliminary analyses, I show that this variation is due partly to differential concentrations of Black population across metropolitan areas—the higher the percentage of Black people in a metropolitan area, the greater the impact or race and ethnicity on unemployment. However, these analyses provide only glimpse at the potential of this method. By treating metropolitan areas as the unit of analysis and salience of race and ethnicity as the dependent variable, we may assess the effectiveness of metropolitan area policy interventions and a variety of metropolitan area social, economic, and demographic characteristics as we strive for more racial and ethnic equality in U.S. labor markets. The conference draft of this paper will explore these potentialities more completely.

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