Unequal Returns to Race, Gender, and Nativity: Estimating Wage Distributions across Local Labour Markets

How are relative returns to individual and group characteristics conditioned in and between metropolitan labor markets? What does this tell us about the structures of localized labor queues, and whether one's individual characteristics would conceivably be rewarded (either absolutely or relatively) better somewhere else? Can we think of local labor markets as some sort of treatment effect on workers wages? What does the shape of local wage distributions have to do with the prospects of different categories of workers? These questions have been asked before, but with relatively little emphasis on the different ways in which local labor markets may be structured differently with regard to unequal returns to different groups or workers, or the counterfactual estimation of whether workers might fare better elsewhere, whether through migration or redistribution. Here, I follow the inspiration of sociologists and geographers especially interested in how local labor market inequalities are configured along social groups (especially McCall, 2001) but employ econometric techniques of estimating wage distributions and their decomposition in order to attempt to provide further insight into these questions. In this paper, I employ PUMS and CPS data from the last two decades in a series of metropolitan-level quantile decompositions (following Machado and Mata 2005 and Melly 2006) to estimate the patterns of gender, racial, and nativity wage gaps as well as to decompose the extent to which between-group and within-group inequality is constitutive. Preliminary results show that wage gaps vary significantly between places in their local constitution when estimating quantiles across entire metropolitan-area distributions. While typical gender and racial wage gaps persist everywhere, they are most persistent at the top in some local labor markets, at the bottom in others, and across the entire distribution in still others. Further, there are significant differences between places that have polarized wage distributions and those that are flattened in terms of the persistence of gender and racial wage gaps. These structural differences have implications for different groups of workers and also for our understanding of local labor markets and their constitution.

In the initial series of decompositions, based on reduced-form models including only age and education, I find that male and female wage gaps (Figure 1) are overwhelmingly consistent with a glass ceiling effect in which the largest gaps persist at the highest ends of the wage distribution, and are largely explained by returns to characteristics (coefficients) rather than compositional. That said there are differences here in the depth, shape, and composition of the gender wage gap across the wage distribution and also across metro areas. Phoenix and Dallas are one typical pattern, whereby the gender wage gap amongst the lowest paid workers is about 15%, increasing only slightly toward the midpoint, after which it increases steeply to a nearly 40% gender wage gap at the top end of the distribution. This is mostly due to differences that are non-compositional, or unexplained, especially at the top of the distribution. Los Angeles, Seattle, and Chicago have more uniformly consistent gender wage gaps with only slight increases except at the top of the wage distribution where there is a noticeable bump, with Chicago's overall gender wage gap being quite a bit higher than that of Los Angeles and Seattle (which are low even compared with Phoenix and Dallas). Again, all of these wage gaps are mainly explained by returns to characteristics, although at the top end men seem to have some compositional advantages. Rather less of Chicago is explainable than of the other cities. And Detroit (like Dallas, not displayed here) is notable in that it has no gender wage gap at the extremes of its distribution but a consistent low gender gap from the 20th-80th deciles only. All of these preliminary results warrant further detailed analysis, but all point out that women fare differently relative to men depending on the labor market within which they are situated, not only in terms of the depth of an overall gender wage gap but also dependent upon where they sit within the overall distribution of local womens' wages, even when controlling for age and education. Further investigation of gendered occupational distribution is probably required.

Racial wage gaps (Figure 2) are much higher and flatter than gender wage gaps, and somewhat more likely to be explained by compositional effects as well as returns to characteristics. Here, they are estimated in the simplest for as wage gaps between white and black men, again based on reduced form models of age and education. Atlanta's racial wage gap is highest at the bottom of the wage distribution and at about the 90th percentile, although it drops to its lowest point at

the top. This racial wage gap is marked by being nearly equally about compositional differences and unequal returns to characteristics, although at its extremes the dominance of unequal returns is clear. At the bottom and top of the distribution black men make 40% less than white men, and the gap hovers between 20 and 30% the middle. Chicago's wage gap looks similar in terms of its polarization and magnitude, although more of the gap is unexplained by differences in worker characteristics, at least until the very top of the wage distribution. Detroit's racial wage gap starts high at 40%, but declines slightly over the wage distribution, ending at only 20% near the top. As in the gender wage gap, Detroit evidences less polarization at the top of the wage distribution, and less between-group inequality at the top than do other cities. Los Angeles's racial wage gap is mostly flat and lower, hovering below 20% until its slight increase at the top end. Just as we see a gender glass ceiling in this labor market, we also see similarly-configured gaps between black and white men, with very little of this top of the distribution difference explainable by compositional effects/worker characteristics.

Although these are only preliminary results, further work on this paper is expected to yield more concrete synthesis of the shape of racial, gender, and nativity (not presented here) labor queues within local labor markets, and further allow for comparison of the differing returns to worker characteristics between them. This has implications for understanding how wage inequalities are constituted locally and the geography of discrimination.

References

Machado, J.A.F. and J. Mata. 2005. "Counterfactual Decomposition of Changes in Wage Distributions using Quantile Regression", *Journal of Applied Econometrics*, 20(4): 445-465.

Melly, G. 2005. "Decomposition of differences in distribution using quantile regression", Labour Economics 12(4): 577-90.

McCall, L. 2001. *Complex Inequality: Gender, Class, and Race in the New Economy*. London, New York: Routledge





Figure 2

