OnTheRecord

A Conversation with **Julie Hotchkiss**

Georgia Data Quantify Impact of Undocumented Workers

Julie Hotchkiss, research economist and policy adviser at the Federal Reserve Bank of Atlanta and an adjunct professor at Georgia State University, obtained access to unique data that contain virtually all the wage records of Georgia's workforce. She and her coauthors devised an algorithm based on millions of wage records between 1990 and 2009 to identify undocumented workers' experiences.

Q. Where are undocumented workers employed in Georgia, and how has that changed over time?

A. Between 1990 and 2000, Georgia experienced one of the nation's fastest-growing populations of undocumented workers. According to our data, that workforce increased about 500 percent during the decade (roughly matching other estimates for Georgia during the period). Since 2000, growth has slowed significantly but still averaged about 7 percent annually from 2000 to 2009.

Of course, most undocumented workers are employed geographically where demand for their labor is greatest. Twelve percent of undocumented workers in Georgia in 2009 were in manufacturing, so it's natural that we would see a concentration of them in the north and northwest parts of the state, where a significant amount of agricultural and textile production occurs. Additionally, 26 percent of undocumented workers in 2009 were in leisure and hospitality, 14 percent were in services such as temporary help and landscaping and janitorial and 12 percent were in construction. Consequently, we would expect to see—and do see—a concentration of employment around urban centers such as Atlanta, Macon and Columbus, where demand for these types of skills is the greatest.

Q. According to your data from Georgia, how do the wages of undocumented workers compare with those of documented workers? Is there any evidence that undocumented workers are exploited by being paid below their worth?

A. Workers' wages can differ for various reasons. One worker might get paid more than others because he has a particularly risky or unpleasant job. Another worker might get paid more because she is especially productive. And yet another might agree to a lower wage because he has limited alternative job opportunities. In this last case, the worker might be so limited that the employer can get away with paying the worker less than his productivity. It's in this case where we might say the worker is being "exploited." The firm is taking advantage of a superior market position to pay a worker less than he is worth. We can imagine that undocumented workers, with limited English skills and fear of being deported, present the perfect opportunity for exploitation—and we find some evidence of this in our research.

On average, across all workers, we estimate that the undocumented earn about half the amount documented workers receive annually. There are several reasons. Primarily, they tend to be concentrated in industries more likely to employ low-skilled workers (because they, themselves, are typically low-skilled). Those sectors include leisure and hospitality, and service activities such as landscaping and janitorial.

Additionally, undocumented workers typically have fewer years of experience in the Georgia labor market and fewer years of tenure with their current employer—employers typically reward experience and tenure with higher wages. We also are more likely to see undocumented workers employed by smaller firms; such companies pay all their workers lower wages, on average, than larger firms. It could be the case that undocumented workers work fewer hours each week, on average, than documented workers. Unfortunately, we do not have any information on hours of work in our dataset.

Ideally, in order to obtain a more accurate picture of wage differentials between documented and undocumented workers, we would compare earnings of workers employed by the same firm. This allows a comparison of earnings that holds constant the size of the firm and its industry, for example, as well as any other characteristics that we can't observe but might be important in the decision of what to pay. When we do this, we find that documented workers earn about 30 percent more than undocumented workers (within the same firm). Now, some of this differential results from the greater labor market experience and tenure that documented workers have; these characteristics translate into greater productivity and, thus, higher wages. Controlling for the greater productivity of documented workers leaves only an 8 percent wage differential. This difference appears to be the result of employers taking advantage of undocumented workers' limited job opportunities to pay them less than they're worth.

Q. Does the presence of undocumented workers reduce the wages of documented workers? What about the arrival of new undocumented workers?

A. One of the most commonly cited concerns about the presence of undocumented workers in the labor market is that they will displace documented workers. Our research shows that newly arriving undocumented workers appear to displace only earlier-arriving undocumented workers. This makes sense since undocumented workers are going to be the closest substitutes for each other.

In contrast to the finding that documented workers are not displaced, we find that

"Our research shows that newly arriving undocumented workers appear to displace only earlier-arriving undocumented workers."

a documented worker whose employer also has undocumented workers earns a lower wage than if he/she worked for an employer that did not employ undocumented workers. Overall, however, this wage effect is fairly negligible—0.15 percent less than if the employer hired no undocumented workers. This amounts to earnings that are $52 less per year, arguably a negligible amount.

The wage penalty experienced by documented workers when their employer also hires undocumented workers varies across industries, with those in the agriculture and professional and business services sectors taking the biggest hit. When their employers hire an average number of undocumented workers, the documented in agriculture earn $769 less per year and their counterparts in professional and business services receive $427 less.

Q. How do firms that hire undocumented workers do over time? Are they more or less successful than other firms?

A. One would expect that an employer paying some workers less than what they are actually contributing to profit would be at a competitive advantage relative to rivals that are not employing undocumented workers. We tested this hypothesis by looking at firms' survival rates and found that those employing undocumented workers survive longer in the market than a near-identical firm that does not employ undocumented workers.

The advantage gained from employing undocumented workers differs based on the firm's characteristics. For example, companies with more low-skilled workers or that have a relatively labor-intensive production process gain more from employing undocumented workers than their colleagues that use higher-skilled workers in a capital-intensive production process. Additionally, firms that supply a broader market (and are likely to be competing with foreign competition with access to even cheaper labor) also benefit more from employing undocumented workers than a firm without that sort of competitive pressure. But the strongest benefit from employing undocumented workers goes to firms whose competitors already employ undocumented workers.

Q. In this research, what surprised you about the results?

A. In response to your question about whether the presence of undocumented workers reduces documented worker wages, there was one thing I didn't expect: Documented workers in two broad sectors, leisure and hospitality and retail trade, actually earn a wage premium if their employers also employ undocumented workers.

One might expect that hiring undocumented workers could generate what is referred to as a scale effect, which means that in response to having access to a new, cheaper source of labor, firms would increase production, increasing demand for all workers, which would raise wages for documented workers. But if this were the case, we should observe a premium in all industries.

There is another theory, however, that would explain the presence of a wage premium only in sectors such as leisure and hospitality and retail trade. It states that the arrival of low-skilled undocumented workers, especially workers with limited English capabilities, allows documented worker specialization in tasks that require better communication skills. And the industries in which we would expect to see this occurring are those in which communication and customer interaction are relatively important—such as in the leisure and hospitality and retail trade sectors.

Q. Can you tell us more about your data and how you were able to identify undocumented workers?

A. Because of its fundamental concern with employment conditions of all workers in the state, the Georgia Department of Labor established a relationship in the mid-1990s with the Andrew Young School of Policy Studies at Georgia State University. It allows researchers access to highly confidential data in order to investigate issues related to the Georgia labor market and its workers. Because of my affiliation with Georgia State University, I can access these data for research purposes.

The numbers used in our analyses come from the Georgia Department of Labor's administration of the unemployment insurance program. Each quarter, employers covered under that program (about 97 percent of all employers) must report the Social Security number (SSN) and amount paid each month for everyone on their payroll. No other identifying worker information is included. We make use of the Social Security Administration's publicly provided information to determine whether a SSN is valid. There is a surprisingly large number of ways in which an SSN can be invalid. We conclude that some result from either errors or incomplete recordkeeping by firms. We restrict our identification of undocumented workers to invalid SSNs that are more likely to have been generated by the worker—numbers that look valid but are not.

One of the implications of this conservative approach is that we end up with a sample of undocumented workers that represents only about 20 percent of what others have estimated as the size of the Georgia undocumented workforce. Consequently, our results likely underestimate the true impact of the presence of undocumented workers on the labor market. Also, since our data come only from Georgia, the results are generalizable to the rest of the U.S. only to the extent that the state's labor market and its employers reflect those in other states.

Before we wrap up, let me come back to your question about what surprised me in doing this research. Talking about SSNs reminded me of it, and it's interesting as a cultural anomaly. A series of SSNs have been decommissioned by the Social Security Administration because, decades ago, they were put on fake Social Security cards used as props to sell wallets. Apparently, some people who purchased the wallets thought the fake Social Security cards were real and started using them as their own. We did, indeed, find some occurrences of these "pocketbook" SSNs in our data and, of course, flagged them as invalid.