The Effect of Employer Enrollment in E-Verify on Low-Skilled U.S. Workers

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ABSTRACT

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U.S. employers can check whether the workers they hire are legally eligible for employment using E-Verify, a free electronic system run by the federal government. We use confidential data from the U.S. Department of Homeland Security to provide the first examination of whether increases in employer enrollment in the E-Verify system affect employment and earnings among workers who are particularly likely to be unauthorized, namely Hispanic non-naturalized immigrants who have not completed high school, and their U.S.-citizen counterparts. We find evidence of negative effects on likely unauthorized immigrant men but positive effects on women. These results are robust to instrumenting for endogenous employer enrollment with state laws that require some or all employers to use the E-Verify system. The results are consistent with a household model of labor supply among unauthorized immigrants.

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1. Introduction

Since 1986, it has been illegal for employers to knowingly hire unauthorized workers in the United States. The main tool for employers to determine employment authorization is an electronic federal government program named E-Verify. E-Verify compares information on the documents that newly hired workers are required to provide to their employer with federal government records. The share of employers enrolled in E-Verify and the share of new hires run through the program have been increasing, but relatively little is known about how E-Verify affects labor market outcomes among unauthorized immigrants or legal workers who might compete with them for jobs.

This study uses new data on the share of employers enrolled in E-Verify to examine how E-Verify enrollment rates affect labor market outcomes among likely unauthorized immigrants and their legal counterparts. We present instrumental variable results using state laws that require employers to use E-Verify. The results indicate that an increase in the share of employers enrolled in E-Verify adversely affects men who are likely to be unauthorized immigrants but has positive labor market effects among corresponding women. Some results suggest adverse impacts on low-skilled U.S-born Hispanic men. Our findings complement those of Ayromloo, Feigenberg and Lubotsky (2020), the only other study with employer E-Verify data. Unlike that study, we distinguish between the sexes, which is important given sex differences in Hispanic immigrants' labor market participation, and we directly examine the impact of increases in employer enrollment in E-Verify on labor market outcomes.

2. Data and Methods

We combine confidential data from U.S. Department of Homeland Security (DHS) with data on labor market outcomes from the American Community Survey (ACS) for people ages 20 to 54 during the years 2005 to 2014. The DHS data, explained in detail in Orrenius, Zavodny and Greer (2020), consist of the number of employers enrolled in the E-Verify program in each state. We divide by the number of establishments in the Quarterly Census of Employment and Wages to create state-level employer enrollment shares.

The basic regression model is

$$\text{Outcome}_{ist} = \alpha + \beta\text{Share of employers enrolled in E-Verify}_{st} + \gamma\text{Controls}_{ist} +$$
$$\text{State}_s + \text{Time}_t + \text{Trend}_{st} + \varepsilon_{ist}. \tag{1}$$

We focus on three *Outcome* variables for individual i, who lives in state s in year t: indicator variables for being employed and being unemployed (not conditional on labor force participation), and the natural log of real annual wage and salary earnings.

We estimate equation (1) for Hispanic immigrants who have not finished high school and are not naturalized U.S. citizens. This group of immigrants is a common proxy for unauthorized immigrants. We expect to find that increases in E-Verify enrollment rates adversely affect these immigrants. We also estimate the equation for other groups that have not finished high school and might be labor market substitutes for unauthorized immigrants: Hispanic immigrants who are naturalized U.S citizens and Hispanic and non-Hispanic white U.S. natives. We expect to find positive impacts if employers turn to those workers as a substitute for unauthorized immigrants. However, there could be negative impacts if employers' costs rise when they enroll in E-Verify. We estimate separate regressions by sex.

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The vector *Controls* includes variables that control for other factors that are likely to be related to labor market outcomes and whose omission might bias estimates of E-Verify enrollment rates. It includes measures of state-level economic conditions (the unemployment rate, real GDP per capita, housing permits, and housing starts, with the last three measured as natural logs) and measures of other immigration policies that vary across states (the fraction of the year that a state has a 287(g) agreement in place, which allows state law enforcement officers to enforce federal immigration laws; the fraction of the state population covered by a local 287(g) agreement; and similar variables for Secure Communities, a program that identifies jailed immigrants who are deportable and notifies federal immigration officials). *Controls* also includes the individual's age as a quartic function.

The regressions include state fixed effects to control for unobservable, time-invariant state-level factors; year fixed effects to control for unobservable, time-specific factors that are shared across states; and state-specific linear time trends to control for unobservable smooth trends. Since the variation in our variable of interest—E-Verify enrollment—is at the state level but we use individual-level data, the standard errors are clustered on the state. Observations are weighted using the ACS person weights. Descriptive statistics and complete results are available on request.

3. Results

The results indicate a negative effect on low-skilled Hispanic non-naturalized immigrant men. Their employment rate falls by 0.3 percentage points if the share of employers enrolled in E-Verify increases by 1 percentage point (Table 1, column 1). Although the marginal effect is small, the estimate implies that universal E-Verify enrollment would have a substantial adverse

impact on employment of unauthorized immigrant men. Men's unemployment and earnings are

unaffected. Among women, unemployment decreases by 0.09 percentage points and annual

earnings rise by 0.9 percent if E-Verify enrollment increases by 1 percentage point (column 2).

E-Verify may not directly and adversely affect unauthorized immigrant women as much as men

because women may be less likely to work for employers that use E-Verify, particularly since

they are overrepresented in housekeeping and childcare.

Table 1. Effect of E-Verify enrollment: OLS estimates for low-skilled Hispanic immigrants by U.S. citizenship status

	Non-U.S. citizens		Naturalized U.S. citizens	
	Men	Women	Men	Women
Employed	-0.0030***	0.0022	0.0006	-0.0010
	(0.0010)	(0.0017)	(0.0031)	(0.0036)
Unemployed	0.0008	-0.0009*	0.0001	0.0011
	(0.0009)	(0.0005)	(0.0030)	(0.0019)
Wage and salary earnings	-0.0030	0.0091**	-0.0075*	0.0030
	(0.0018)	(0.0043)	(0.0038)	(0.0079)

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$
Note: Shown are estimated coefficients on the share of state employers enrolled in E-Verify in a regression with the indicated outcome. Standard errors clustered on state are in parentheses. Each estimate is from a separate regression. Regressions also include controls for age, state economic conditions and immigration policies, state and year fixed effects, and state-specific linear time trends.

Employers do not appear to turn to Hispanic immigrants who are naturalized U.S.

citizens as E-Verify enrollment increases. There is no significant impact on employment or

unemployment for either sex (Table 1, columns 3 and 4). However, men's earnings fall. This

could be due to increased discrimination or fewer working hours, among other potential reasons.

Employers also do not appear to turn to low-skilled U.S. natives as E-Verify enrollment

increases (Table 2). Employment does not rise among U.S.-born Hispanics, and falls among

white women (although this result does not hold in the IV specification). Unemployment and earnings are not significantly affected among U.S. natives in the OLS regressions.

Table 2. Effect of E-Verify Enrollment: OLS estimates for low-skilled U.S. natives by ethnicity

	Hispanics		Non-Hispanic whites	
	Men	Women	Men	Women
Employed	-0.0026	-0.0016	-0.0008	-0.0017*
	(0.0019)	(0.0035)	(0.0007)	(0.0009)
Unemployed	-0.0007	0.0001	0.0006	-0.0001
	(0.0010)	(0.0033)	(0.0006)	(0.0007)
Wage and salary earnings	-0.0030	-0.0024	-0.0010	-0.0011
	(0.0054)	(0.0062)	(0.0027)	(0.0023)

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$
Note: Shown are estimated coefficients on the share of state employers enrolled in E-Verify in a regression with the indicated outcome. Standard errors clustered on state are in parentheses. Each estimate is from a separate regression. Regressions also include controls for age, state economic conditions and immigration policy, state and year fixed effects, and state-specific linear time trends.

One potential concern about the validity of the OLS results is that employers' willingness to enroll in E-Verify may depend on the number of unauthorized workers or the business cycle. If unauthorized workers are relatively prevalent in a state, more employers might enroll in E-Verify to ensure they do not hire those workers. Alternatively, employers might be reluctant to enroll, particularly when labor markets are tight, because they believe it would become too difficult to hire workers. E-Verify enrollment therefore may be endogenous in regression models of labor market outcomes. The direction of endogeneity bias is ambiguous.

To control for potential endogeneity, we instrument for the share of employers enrolled in E-Verify using state laws that require all employers or public sector employers to use E-Verify. Between 2006 and 2014, seven states began requiring all or almost all employers to use E-

Verify, and another 10 states began requiring all or most government agencies to use E-Verify. These laws increased the share of employers enrolled in E-Verify within those states (Orrenius, Zavodny and Greer, 2020), and research shows the laws are plausibly exogenous with respect to labor market outcomes (Ayromloo, Feigenberg and Lubotsky, 2020). The two variables are strong predictors of the share of employers enrolled in E-Verify, as the F-test statistics (for the employment and unemployment models) reported at the bottom of Table 3 show.

Table 3. Effect of E-Verify Enrollment: IV estimates for low-skilled Hispanic immigrants by U.S. citizenship status

	Non-U.S. citizens		Naturalized U.S. citizens	
	Men	Women	Men	Women
Employed	-0.0039***	0.0034**	0.0007	0.0037
	(0.0007)	(0.0015)	(0.0023)	(0.0052)
Unemployed	0.0016**	-0.0019*	-0.0007	-0.0023
	(0.0007)	(0.0011)	(0.0030)	(0.0042)
Wage and salary earnings	-0.0025	0.0126**	-0.0090***	0.0050
	(0.0029)	(0.0059)	(0.0031)	(0.0076)
First-stage F-test statistic	14.90	14.98	17.10	17.73

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$
Note: Shown are estimated coefficients on the share of state employers enrolled in E-Verify, instrumented using indicator variables for whether a state requires all employers and public-sector employers to use E-Verify. Standard errors clustered on state are in parentheses. Regressions also include controls for age, state economic conditions and immigration policies, state and year fixed effects, and state-specific linear time trends.

The IV results tend to indicate more significant and slightly larger effects of E-Verify enrollment. The IV results again point to adverse effects among unauthorized immigrant men and positive effects among women, including on employment, which is consistent with a family model of labor supply. To confirm this, we looked at married women in the data and found a significant increase in employment and earnings among low-skilled non-naturalized Hispanic

immigrant women married to similar men, but no significant effects among otherwise similar women married to men who are not low-skilled non-naturalized Hispanic immigrants (results not shown).

For brevity, we do not present IV results for U.S. natives. The results are similar to those in Table 2 except that the negative employment effect for white women loses statistical significance as a result of an under-powered first-stage, while the negative employment effect for Hispanic men becomes marginally significant. In short, there is no evidence that U.S. natives benefit from employer enrollment in E-Verify.

4. Conclusion

E-Verify is the primary tool that employers have for determining whether their new hires are legally eligible to work. Our results indicate that increases in employer enrollment in E-Verify adversely affect unauthorized immigrant men. This finding is consistent with other research on the effects of state laws requiring some or all employers to use the program. Further, no results here indicate benefits among low-skilled U.S. natives. Interestingly, we find evidence suggesting that unauthorized immigrant women, particularly those married to another unauthorized immigrant, work more as E-Verify enrollment rises. Why women are better able to avoid E-Verify and the long-term impacts on family formation and child outcomes, along with effects of employer E-Verify usage rather than enrollment, are questions for future research.

Acknowledgements

References

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