Do Apprehensions of Undocumented Immigrants Reduce Crime and Create Jobs? Evidence from U.S. Districts, 2000-2015

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We analyze whether the intensity of immigration enforcement, measured as apprehensions of undocumented immigrants[1] per thousand people, affects local crime rates and the local labor market opportunities of native workers.[2] Using data across seventeen U.S. Immigration and Customs Enforcement ("ICE") districts over the period 2000-2015, we take advantage of a sudden surge in the apprehension rate from 2007-2011, followed by a decline in 2012-2015. The magnitude of the increase in apprehensions varied significantly across districts, depending on the intensity of local enforcement, and on the size of the local undocumented population. We use the variation created by this surge in difference-in-differences analysis. We do not find any evidence that more apprehensions in a district reduced crime rates, nor do we find evidence that apprehensions improved employment and wages for less educated natives. These findings do not support the rhetoric that deportations remove criminals and/or make more jobs available to natives.

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[1] We call "undocumented immigrants" throughout the article those who do not have a legal right to stay in the US.

[2] We call "native workers" throughout the article those who are natural-born U.S. citizens.

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INTRODUCTION

Recent presidential administrations have struggled with how to address the political challenges accompanying the eleven million undocumented immigrants in the United States. After the terrorist attacks of September 2001, immigration enforcement tightened at the border and has progressively become more aggressive inside the U.S.[3] Before that, however, between 1990 and 2001, many young Mexicans crossed the border as undocumented immigrants and were promptly employed in agriculture, construction, personal and food service sectors, mainly in the U.S.-Mexico border states.[4] Since September of 2001, many politicians have portrayed undocumented immigrants as a security risk and the growing concerns over the U.S.-Mexico border led to the construction of large segments of a border fence in California, Arizona, and Texas.[5] The federal government substantially increased the Border Patrol Budget from $1.1 billion in 2001 to $3.5 billion in 2011.[6] Similarly, the number of Border Patrol agents increased from 10,000 in 2001 to about 21,000 in 2011.[7] These changes were aimed at preventing illegal border crossings.[8] Especially between 2004 and 2008, the Bush administration significantly increased non-border apprehensions and eventual deportations of undocumented immigrants.[9]

[3] MARC R. ROSENBLUM, US IMMIGRATION POLICY SINCE 9/11: UNDERSTANDING THE STALEMATE OVER COMPREHENSIVE IMMIGRATION REFORM 1 (2011), https://www.migrationpolicy.org/research/RMSG-us-immigration-policy-cir-stalemate ("In the post-9/11 period, Congress passed a series of tough measures to tighten border security and facilitate data collection and information sharing on suspected terrorists, and broadened the government's power to detain and deport immigrants.").

[4] DANIEL CHIQUIAR & ALEJANDRINA SALCEDO, MEXICAN MIGRATION TO THE UNITED STATES: UNDERLYING ECONOMIC FACTORS AND POSSIBLE SCENARIOS FOR FUTURE FLOWS 7, 11 (2013).

[5] REY KOSLOWSKI, THE EVOLUTION OF BORDER CONTROLS AS A MECHANISM TO PREVENT ILLEGAL IMMIGRATION 1-2, 4 (2011) (citing the Secure Fence Act of 2006, 8 U.S.C. § 1701(2) (2018)).

[6] U.S. CUSTOMS & BORDER PROTECTION, *Enacted Border Patrol Program Budget by Fiscal Year*, https://www.cbp.gov/sites/default/files/assets/documents/2017-Dec/BP%20Budget%20History%201990-2017.pdf (providing that the exact budget for 2001 was $1,146,463,000, while the budget for 2011 was $3,549,295,000).

[7] Leigh Ann Caldwell, *The U.S. Already Spends Billions on Border Security*, NBC NEWS (Aug. 31, 2016, 8:06 AM), https://www.nbcnews.com/politics/2016-election/trump-s-wall-would-add-billions-u-s-spends-border-n640251.

[8] *See* KOSLOWSKI, *supra* note 5, at 1.

[9] U.S. DEP'T OF HOMELAND SEC., 2015 YEARBOOK OF IMMIGRATION STATISTICS 103 (2015) (recording the number of removals in 2004 as 240,665, and the number of removals in 2008 as 359,795).

The non-border apprehension rate continued to increase until 2011 when, during the re-election campaign, the Obama administration instructed Immigration and Customs Enforcement ("ICE")[10] — to prioritize apprehensions and deportations of serious criminals.[11] Apprehension priorities became increasingly explicit between 2011 and 2015, resulting in a progressive decline in non-border apprehensions and deportations.[12] The Obama administration also introduced the Deferred Action for Childhood Arrivals ("DACA") program in 2012.[13] DACA protects from deportation and confers work permits to individuals who arrived in the U.S. as children, have a high school diploma, and are studying or working.[14] Similarly, in 2014 the Obama administration introduced the Deferred Action for Parents of Americans ("DAPA") to protect from deportation parents of undocumented individuals who arrived as children,[15] although state lawsuits blocked the DAPA program in 2015.[16]

Still, overall changes in enforcement policies between 2012 and 2016 led to a decrease in apprehensions and deportations during these years.[17] The early actions of the Trump administration have clearly

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[10] U.S. IMMIGRATION & CUSTOMS ENF'T, https://www.ice.gov/.

[11] *See* Memorandum from John Morton, Assistant Sec'y, U.S. Immigration & Customs Enf't on Civil Immigration Enforcement: Priorities for the Apprehension, Detention, and Removal of Aliens (June 30, 2010), https://www.ice.gov/doclib/news/releases/2010/civil-enforcement-priorities.pdf ("The removal of aliens who pose a danger to national security or a risk to public safety shall be ICE's highest immigration enforcement priority.").

[12] MARC R. ROSENBLUM & KRISTEN MCCABE, DEPORTATION AND DISCRETION: REVIEWING THE RECORD AND OPTIONS FOR CHANGE 3 (2014); Muzaffar Chishti et al., *The Obama Record on Deportations: Deporter in Chief or Not?* (Jan. 26, 2017), http://www.migrationpolicy.org/article/obama-record-deportations-deporter-chief-or-not (providing a detailed account of the evolution of the immigration enforcement policies during the Obama administration).

[13] JEANNE BATALOVA ET AL., DACA AT THE TWO-YEAR MARK: A NATIONAL AND STATE PROFILE OF YOUTH ELIGIBLE AND APPLYING FOR DEFERRED ACTION 1 (2014).

[14] Specifically, the full DACA requirements include that the individual: (1) is aged fifteen or older; (2) was under age thirty-one at the time of pronouncement on June 15, 2012; (3) came to the U.S. before the age of sixteen; (4) was physically present in the U.S. as of June 15, 2012; (5) had lived in the U.S. continuously for at least five years at the time of DACA's announcement.

[15] RANDY CAPPS ET AL., DEFERRED ACTION FOR UNAUTHORIZED IMMIGRANT PARENTS: ANALYSIS OF DAPA'S POTENTIAL EFFECTS ON FAMILIES AND CHILDREN 1 (2016).

[16] *Id.* at 4 ("The governors of 26 states filed a lawsuit in federal court in Texas challenging the president's authority to create the deferred action programs as well as the process employed to do so.").

[17] U.S. DEP'T OF HOMELAND SEC., *supra* note 9, at 91 (recording the number of undocumented immigrants apprehended in 2012 as 671,327, and the number apprehended in 2016 as 530,250; the number of undocumented immigrants

reversed the course, and new guidelines to ICE agents issued as early as February 2017 empower federal authorities to detain and deport more aggressively.[18] All of these changes suggest a tougher approach to the issue of undocumented immigration with an increased role for apprehensions and deportations of undocumented immigrants, including non-criminals.[19]

With such a renewed emphasis on the apprehension and deportation of undocumented immigrants, the Trump administration has also reaffirmed the rhetoric arguing that undocumented immigrants contribute to two of the most damaging social and economic problems affecting poor and vulnerable U.S. citizens: a lack of job opportunities and the presence of crime.[20] The rhetoric is that undocumented immigrants compete with U.S.-born workers and worsen the job opportunities of less educated natives.[21] The reasoning continues that by escaping the law, undocumented immigrants bring crime and illegal activities to their neighborhoods.[22] Thus, these politicians argue, removing undocumented immigrants through apprehension and deportation will reduce crime and improve the prospects of native workers.[23] This is a justification for the deportation and repatriation of undocumented immigrants that is strongly ingrained in the minds of some politicians.[24] But is there any empirical evidence that deportations have those effects?

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apprehended in 2012 was 240,665, and the number of removals in 2008 as 359,795).

[18] Memorandum from John Kelly, Sec'y, U.S. Dep't of Homeland Sec., to Kevin McAleenan, Acting Comm'r, U.S. Customs and Border Protection et al. on Enforcement of the Immigration Laws to Serve the National Interest (Feb. 17, 2017), http://apps.washingtonpost.com/g/documents/national/read-the-memos-signed-by-dhs-secretary-kelly-on-new-guidelines-for-deporting-illegal-immigrants/2338/.

[19] *Id.*

[20] *See, e.g.*, *Transcript of Donald Trump's Immigration Speech*, N.Y. TIMES (Sept. 1, 2016), https://www.nytimes.com/2016/09/02/us/politics/transcript-trump-immigration-speech.html ("And they're hurting a lot of our people that cannot get jobs under any circumstances . . . . The crime will stop. They're going to be gone.").

[21] *Id.*

[22] *Id.* ("We will terminate the Obama administration's deadly, and it is deadly, non-enforcement policies that allow thousands of criminal aliens to freely roam our streets, walk around, do whatever they want to do, crime all over the place.").

[23] *See, e.g.*, *id.*

[24] *See, e.g.*, *id.*; Press Release, U.S. Dep't of Justice, Attorney General Jeff Sessions Delivers Remarks About Carrying Out the President's Immigration Priorities (Oct. 20, 2017), https://www.justice.gov/opa/speech/attorney-general-jeff-sessions-delivers-remarks-about-carrying-out-presidents-immigration ("These jurisdictions that knowingly, willfully, and purposefully release criminal aliens back into their communities are sacrificing the lives and safety of American citizens in the pursuit of an extreme open borders policy. It's extreme and open borders because if a jurisdiction won't deport someone who enters

There is limited causal research on the effect of deportations on crime. In theory, deportations may affect crime through multiple channels. First, as posited by advocates of strict immigration enforcement, programs targeted at removing serious criminals may reduce crime.[25] These programs may also deter immigrants from committing crimes.[26] However, there is some evidence that the government often deports people who have not committed serious crimes, and many deportees have only committed immigration violations or minor traffic offenses.[27] Because these people are not criminals, their removal would have no effect on crime rates.[28] Moreover, deportations create fear among immigrant communities, and this fear may impact community policing if undocumented immigrants and their families and neighbors are afraid to interact with local law enforcement.[29] A decline in community policing, or the reallocation of police resources from preventing serious crime to apprehending immigrants with minor criminal records, could increase crime rates.[30] Some economists have found no statistically significant differences in crime in sanctuary cities or cities that refuse to cooperate with federal immigration enforcement, while others argue that immigrant-friendly cities, including sanctuary cities, have less crime.[31] A recent study has used the timing of introduction of the Secure Communities program to estimate the effect of the program on

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illegally and then commits another crime then who will they deport. This isn't just a bad policy. It's a direct challenge to the laws of the United States.").

[25] *See* Thomas J. Miles & Adam B. Cox, *Does Immigration Enforcement Reduce Crime? Evidence from Secure Communities*, 57 J.L. & ECON. 937, 938 (2014).

[26] *Id.*

[27] *See Secure Communities and ICE Deportation: A Failed Program?*, TRAC IMMIGR. (Apr. 8, 2014), http://trac.syr.edu/immigration/reports/349/.

[28] Miles & Cox, *supra* note 25, at 955; s*ee also Deportations Under ICE's Secure Communities Program*, TRAC IMMIGR. (Apr. 25, 2018), http://trac.syr.edu/immigration/reports/509/.

[29] *See, e.g.*, David Becerra et al., *Policing Immigrants: Fear of Deportations and Perceptions of Law Enforcement and Criminal Justice*, 17 J. SOC. WORK 715, 717 (2017).

[30] *See* Benjamin Gonzalez et al., The Politics of Refuge: Sanctuary Cities, Crime, and Undocumented Immigration 11 (May 7, 2017) (unpublished manuscript), http://journals.sagepub.com/doi/full/10.1177/1078087417704974).

[31] Christopher J. Lyons, María B. Vélez & Wayne A. Santoro, *Neighborhood Immigration, Violence, and City-Level Immigrant Political Opportunities*, 78 AM. SOC. REV. 604, 624 (2013); Tom K. Wong, *The Effects of Sanctuary Policies on Crime and the Economy*, CTR. FOR AM. PROGRESS (Jan. 26, 2017), https://www.americanprogress.org/issues/immigration/reports/2017/01/26/297366/the-effects-of-sanctuary-policies-on-crime-and-the-economy/.

crime. The study found no detectable effect on overall crime rates.[32] Similarly another recent working paper provides an examination of immigration enforcement and local policing, arguing that reducing ICE apprehensions increases policing efficiency and reduces crime rates.[33] Conversely, a recent study on the effect of enforcing E-Verify laws in Arizona, on the property and violent crime in that state, using a synthetic control method finds a reduction of crime associated with the decline in undocumented immigrants but only for property crimes.[34]

Previously, economists have analyzed the effect of immigrants on the employment and wages of U.S.-born workers at the national level[35] and at the local level.[36] Most studies have found that the impact of immigration on native wages is small or null, even when focusing on less-skilled or less-educated native workers.[37] Only recently have two studies examined the local impact of historical episodes of large forced repatriations. One study analyzes the effects of forced repatriations after the end of the Bracero Program in the mid-1960s.[38] The other analyzes the effect of the Mexican repatriations during the Great Depression in 1930-1935.[39] Those two studies do not find any positive

[32]   Miles & Cox, *supra* note 25, at 937.

[33]   Alberto Ciancio, The Impact of Immigration Policies on Local Enforcement, Crime and Policing Efficiency 7 (Apr. 1, 2017) (unpublished Ph.D. dissertation No. 2231, University of Pennsylvania), https://repository.upenn.edu/edissertations/2231/.

[34]   Aaron Chalfin & Monica Deza, *New Evidence on Mexican Immigration and Crime in the United States: Evidence from a Natural Experiment in Immigration Enforcement*, RESEARCHGATE 27 (July 20, 2017), https://www.researchgate.net/publication/318921274_New_Evidence_on_Mexican_Immigration_and_Crime_in_the_United_States_Evidence_from_a_Natural_Experiment_in_Immigration_Enforcement.

[35]   Gianmarco I.P. Ottaviano & Giovanni Peri, *Rethinking the Effect of Immigration on Wages*, J. EUR. ECON. ASS'N 152, 152 (2012).

[36]   David Card, *Immigration and Inequality*, 99 AM. ECON. REV. 1, 1-2 (2009); Gaetano Basso & Giovanni Peri, The Association Between Immigration and Labor Market Outcomes in the United States 1 (IZA Discussion Papers, No. 9436, 2015) (Ger.); Gihoon Hong & John McLaren, *Are Immigrants a Shot in the Arm for the Local Economy?* (Nat'l Bureau of Econ. Research, Working Paper No. 21123, 2016).

[37]   Card, *supra* note 36, at 2; Basso & Peri, *supra* note 36, at 1; Giovanni Peri & Vasil Yasenov, *The Labor Market Effects of a Refugee Wave: Applying the Synthetic Control Method to the Mariel Boatlift* (Nat'l Bureau of Econ. Research, Working Paper No. 21801, 2017).

[38]   Michael A. Clemens et al., *Immigration Restrictions as Active Labor Market Policy: Evidence from the Mexican* Bracero *Exclusion* 1 (Inst. of Labor Economics, Discussion Paper No. 10512, 2017).

[39]   Jongkwan Lee et al., *The Employment Effects of Mexican Repatriations: Evidence from the 1930's* 2 (Nat'l Bureau of Econ. Research, Working Paper No. 23885, 2017).

effect of Mexican repatriations on the wages or employment of low-skilled natives.[40]

A.   Overview of Method and Results

In this study, we use the variation over time and across seventeen U.S. federal immigration enforcement jurisdictions (which we will call districts) in the intensity of *undocumented apprehension* relative to the local working-age population. Very recent papers have also analyzed the impact of 287(g) agreements between local police and ICE.[41] One of them looks at the impact on local economies, and specifically on employment growth in sectors that employ a large share of immigrants.[42] Using differences between counties that signed the agreement and contiguous counties that did not, they find strong negative effect of enforcement on the growth of administrative and personal service sectors.[43] Another paper looks at impacts on farm profitability and growth.[44] The authors use jail occupancy as determinant of whether a county started a 287(g) agreement with ICE, and they find that more enforcement implies lower farm growth and profitability.[45]

In our paper we evaluate whether there is any evidence that during the "surge" of 2007-2011, districts with very large increases in apprehension rates experienced a decrease in crime rates and/or improved labor market conditions among low-skilled U.S.-born workers relative to districts with no increase in apprehension rates. In evaluating these potential effects on U.S.-born citizens it is important to recognize that widespread apprehensions of non-criminals have significant economic and human costs on the undocumented and on the documented immigrants. Previous studies have documented that they cause disruptions to families and worsen the conditions of

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[40]   Clemens et al., *supra* note 38, at 2; Lee et al., *supra* note 39.

[41]   Under section 287(g) of the 1996 Immigration and Nationality Act, local law enforcement agencies could form agreements with ICE in enforcing federal immigration law.

[42]   Sara Bohn & Roberto Santillano, *Local Immigration Enforcement and Local Economies*, 56 INDUS. REL. 236, 236 (2017).

[43]   *Id.* at 238-39.

[44]   Jennifer Ifft & Margaret Jodlowski, Is ICE Freezing US Agriculture? Impacts of Local Immigration Enforcement on US Farm Profitability and Structure 1 (Nov. 3, 2017) (unpublished manuscript), https://ageconsearch.umn.edu/bitstream/235950/2/aaea_updated.pdf.

[45]   *Id.*

children who are involved.[46] Apprehensions affect immigrants' trust in government and in law enforcement and this can reduce the reporting of criminal activities in the community and participation in important programs that support and assist children and families (such as SNAP and Medicaid).[47]

In this study, we analyze if these apprehensions had a positive impact on U.S.-born workers and on local communities. From a policy perspective, it is crucial to establish whether aggressive apprehension policies deliver the crime reduction and the economic benefits for natives claimed by the Trump administration.[48] Our analysis does not show any evidence of significant correlation between apprehension (enforcement) intensity and the local crime rate or between apprehension intensity and employment or wage growth of low-skilled natives.[49] This is true looking at a panel analysis of seventeen ICE districts from 2000-2015.[50] During the apprehension surge, neither property crime nor violent crime seem to have significantly declined in high-enforcement districts vis-a-vis low-enforcement ones.[51] The point estimates even suggest higher growth of crime rates in high-enforcement district during the surge relative to low-enforcement.[52] The evidence against apprehensions improving native labor market

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[46] Catalina Amuedo-Dorantes & Mary J. Lopez, *The Hidden Educational Costs of Intensified Immigration Enforcement*, 84 S. ECON. J. 120, 120 (2017) (showing how increased enforcement affected schooling outcomes of children of likely undocumented immigrants); Catalina Amuedo-Dorantes & Esther Arenas-Arroyo, *Immigration Enforcement and Foster Care Placement* 1-2 (IZA Discussion Papers, No. 10850, 2017) (Ger.) (showing that increased deportations between 2009 and 2013 caused more children of immigrants to be in foster care). *But see* Nolan G. Pope, *The Effects of DACAmentation: The Impact of Deferred Action for Childhood Arrivals on Unauthorized Immigrants*, 143 J. PUB. ECON. 98, 98 (2016) (showing that policies protecting undocumented immigrants from deportation, such as DACA, increase both the probability of working and the income of unauthorized immigrants).

[47] Tara Watson, *Inside the Refrigerator: Immigration Enforcement and Chilling Effects in Medicaid Participation*, 6 AM. ECON. J. 313, 313 (2014) (showing how increased enforcement reduces participation of immigrants to Medicaid).

[48] A government which is accountable to its citizens should evaluate the impact of policies on average citizens' welfare. Our analysis will provide database evidence of these potential costs and benefits.

[49] *See* U.S. DEP'T OF HOMELAND SEC., 2016 YEARBOOK OF IMMIGRATION STATISTICS 95 tbl.35 (2016), https://www.dhs.gov/immigration-statistics/yearbook/2016/table35 (last visited Aug. 5, 2018) [hereinafter ALIENS APPREHENDED 2014 TO 2016]; Steven Ruggles et al., *Integrated Public Use Microdata Series: Version 7.0 [dataset]*, IPUMS (2017), https://doi.org/10.18128/D010.V7.0.

[50] *See* ALIENS APPREHENDED 2014 TO 2016, *supra* note 49.

[51] *See id.*

[52] *See id.*

opportunities is even stronger and more precise.[53] Focusing on the difference-in-differences variation we analyze how districts that experienced a large increase in enforcement in the 2007-2011 "surge" period differ from those that did not experience an enforcement surge in the same period. There appears to be a *negative and sometimes significant* association between high apprehension intensity and the employment growth of low-skilled natives.[54] While we need to take these findings with caution due to the significant margin of error and because of the small number of observations, we can say that our analysis does not provide support to the claim that more apprehensions of undocumented immigrants reduced crime and created jobs for American workers.[55]

In the last section of the paper we briefly explore possible reasons for why some districts had a larger increase in the apprehension rate between 2007 and 2011. Interestingly, we find that certain political and economic characteristics of a district from 2000 to 2006 mildly predict the increase in intensity of enforcement after 2007.[56] A higher share of Republican votes in the 2004 presidential election, a larger increase in the share of non-citizens relative to the overall population in 2000-2006, and higher employment and wage inequality between low-skilled and high-skilled workers before the surge in enforcement all predict a larger increase in immigration enforcement.[57] These correlations, however, are among only seventeen districts; they are rather weak and should be interpreted as mere suggestions.[58] Still, they are somewhat consistent with the generation of anti-immigration sentiment due to the increasing presence of immigrants and increasing inequality.[59] This is also consistent with manifestation of anti-immigrant sentiment in votes to the Republican party, which usually takes a harsher stance on immigration enforcement.[60] Ultimately, these local sentiments may affect enforcement policies and practices.[61]

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[53] *See id.*

[54] *See id.*

[55] *See id.*

[56] *See id.*; *see also Election of 2004*, Am. Presidency Project, http://www. presidency.ucsb.edu/showelection.php?year=2004 (last visited July 9, 2018).

[57] *See Election of 2004*, *supra* note 56.

[58] *See id.*

[59] *See id.*

[60] *See id.*

[61] *See id.*

I.   IMMIGRATION ENFORCEMENT: DESCRIPTION AND TRENDS

By law, all undocumented immigrants, defined as those who do not have legal right to stay in the country, are subject to deportation.[62] The number of undocumented immigrants grew in the U.S. during the 1990s and 2000s, reaching a peak of about twelve million people around 2007 and remaining roughly stable at eleven million after 2009.[63] As this number grew, the process of apprehending and deporting undocumented immigrants has evolved and its intensity has changed over time.[64]

In most cases, the deportation of an undocumented immigrant[65] not at the border is initiated by the local police when an officer apprehends the person.[66] There have been cases of direct "raids" by federal authorities, however, due to the limited resources of ICE and the vast territory over which undocumented immigrants live and work, such raids are relatively rare.[67] It is most common that the first contact of an undocumented immigrant with law enforcement occurs through the local police.[68] After an initial apprehension, the local police officers may send a notification to ICE about the immigration status of the individual.[69] If he or she is undocumented, the local police may detain the person until ICE can take custody.[70] Once ICE takes custody, the person is considered apprehended by ICE and a deportation procedure may be initiated.[71]

Between 2007 and 2011, starting with the Bush administration and continuing with the first term of the Obama administration, the intensity of ICE apprehensions of undocumented aliens increased

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[62] 8 U.S.C. § 1182(a) (2018).

[63] Jens Manuel Krogstad, Jeffrey S. Passel & D'Vera Cohn, *5 Facts About Illegal Immigration in the U.S.*, PEW RES. CTR. (Apr. 27, 2017), http://www.pewresearch.org/fact-tank/2017/04/27/5-facts-about-illegal-immigration-in-the-u-s/ (stating the most accurate estimates of number of undocumented immigrants since 1990).

[64] *See, e.g.*, ROSENBLUM, *supra* note 3.

[65] We use the definition of an alien according to the IRS, that is an individual who is not a U.S. citizen or a U.S. national. *Immigration Terms and Definitions Involving Aliens*, IRS, https://www.irs.gov/individuals/international-taxpayers/immigration-terms-and-definitions-involving-aliens (last visited July 9, 2018).

[66] Miles & Cox, *supra* note 25, at 938.

[67] *See ICE Immigration Raids: A Primer*, TRAC IMMIGR. (Feb. 13, 2017), http://trac.syr.edu/immigration/reports/459/ (last visited July 9, 2018).

[68] *See* Miles & Cox, *supra* note 25, at 948.

[69] *Id.* at 947.

[70] *Id.*

[71] *See* ALIENS APPREHENDED 2014 TO 2016, *supra* note 49.

steadily and substantially.[72] Much of the increase in apprehensions during this period occurred through the expansion of programs that relied on cooperation between federal immigration authorities and local law enforcement.[73] The Secure Communities program was a federally mandated effort that required local law enforcement to check the fingerprints of anyone booked into a local jail or prison against the Department of Homeland Security ("DHS") immigration database.[74] Once in the system, ICE would issue a detainer order for anyone suspected of an immigration violation.[75] ICE could subsequently take custody with the option to deport anyone unauthorized to live in the U.S. whether or not they were convicted of another crime.[76] The 287(g) programs were more intense than the Secure Communities program because they delegated some immigration enforcement responsibilities to local police and it was more difficult for counties to opt out.[77] 287(g) agreements were significantly expanded and strengthened in 2008-2009 and authorized local police to detain and report immigrants for violations of the federal immigration laws.[78] The role of local police in implementing these agreements varied substantially depending on the willingness of local law enforcement agencies to cooperate with ICE.[79] Local attitudes towards undocumented immigrants may have also affected the degree of local enforcement.[80]

In 2011, prior to his re-election, the Obama administration started issuing memos directing ICE to prioritize apprehensions and deportations of serious criminals, essentially excluding from

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[72] The U.S. Immigration and Naturalization Service ("INS") was responsible for immigration enforcement from 1993-2003 and operated under the Department of Justice. The 2002 Homeland Security Act transferred the functions of the INS to the Department of Homeland Security, and beginning in 2003, ICE took over most immigration enforcement responsibilities. We refer to ICE throughout this paper for simplicity, noting that the INS conducted these activities prior to 2003. *Did You Know?: The INS No Longer Exists*, U.S. CITIZENSHIP & IMMIGR. SERVS. (Apr. 13, 2011), https://www.uscis.gov/archive/blog/2011/04/did-you-know-ins-no-longer-exists.

[73] *See* PRATHEEPAN GULASEKARAM & S. KARTHICK RAMAKRISHNAN, THE NEW IMMIGRATION FEDERALISM 129 (2015).

[74] *Id.*

[75] *Id.*

[76] *Id.*

[77] *See* CRISTINA RODRÍGUEZ ET AL., A PROGRAM IN FLUX: NEW PRIORITIES AND IMPLEMENTATION CHALLENGES FOR 287(G) 1 (2010), https://www.migrationpolicy.org/sites/default/files/publications/287g-March2010.pdf.

[78] *Id.*

[79] *See id.* at 5.

[80] *See* GULASEKARAM & RAMAKRISHNAN, *supra* note 73, at 130.

deportation individuals who did not pose a serious threat to the community.[81] The guidelines of these memos stated that given the limited resources of ICE, undocumented people who posed a low risk to public safety and did not commit serious crimes were not a priority in apprehension and deportations.[82] Such progressive limitations on the deportation priorities of ICE resulted in a steady decline in the number of apprehensions of non-criminals between 2012 and 2016.[83] Although the Obama administration's efforts dramatically changed enforcement priorities, local law enforcement remained a crucial factor in enforcement policy. And not every local district implemented the Obama enforcement priorities the same way. Because local law enforcement cooperation across districts varied, the rates of decline in apprehensions and deportations of non-criminals were not uniform over this period.[84] Despite variation in local cooperation, the U.S. as a whole saw a significant and rapid increase in the enforcement and apprehension effort between 2007 and 2011 due to changes in federal immigration policy.[85] This setting provides an interesting opportunity to analyze the impact of non-border apprehensions of undocumented immigrants on local outcomes, such as crime rate and labor market outcomes.

A.   Trends and Summary Statistics on Enforcement

Table 1 shows the list of districts for which ICE[86] collects and makes publicly available detailed data on apprehensions, as well as the set of states within each district.[87] We use these districts as the main units of analysis. Table 2 shows the seventeen districts ranked by the increase in the intensity of immigration enforcement between 2007 and 2011, where we measure immigration enforcement as yearly apprehensions

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[81] See Memorandum from Charles Johnsoff, Sec'y, U.S. Dep't of Homeland Sec. on Policies for the Apprehension, Detention and Removal of Undocumented Immigrants (Nov. 20, 2014), https//www.dhs.gov/sites/default/files/publications/141120memo prosecutorialdiscretion.pdf for an example of one of those memos.

[82] *Id.*

[83] *See* ALIENS APPREHENDED 2014 TO 2016, *supra* note 49.

[84] *Id.* Local cooperation mattered due to the structure of the program. We can see geographic variation in deportations in our data from the ICE yearbooks. *See Yearbook of Immigration Statistics*, U.S. DEP'T OF HOMELAND SEC., https://www.dhs.gov/ immigration-statistics/yearbook (last visited July 11, 2018).

[85] *See infra* Panel A of Figure 1.

[86] Previously, the Immigration and Naturalization Service ("INS"). *See Did You Know?: The INS No Longer Exists*, *supra* note 72.

[87] *Infra* Table 1.

relative to the total population of the district (per thousand people).[88] Column 2 of Table 2 shows the increase in apprehension per 1,000 people from 2007 to 2011 (the "surge" period).[89] Column 3 shows the rank of the district in terms of intensity of the "surge," and column 4 shows the apprehension rate (per thousand people) at the peak of the enforcement surge in 2011.[90]

The apprehensions that we measure across districts are the result of internal enforcement operations.[91] Panel A of Figure 1 displays total (non-border) apprehensions by year, clearly demonstrating a sharp surge in apprehensions from 2007 to 2011.[92] The aggregate number of apprehensions increased from fewer than 100,000 to more than 300,000 per year.[93] Panel B shows, instead, the time trend of removals, or actual deportations, and it includes both internal enforcement and individuals stopped at the border.[94] While there was substantial growth in removals, the increase was more gradual, beginning in 2002 and peaking in 2013.[95] The delays in legal proceedings create differences in the timing of apprehension and removal, and the inclusion of border enforcement in total removals makes this variable a less precise indicator of interior apprehensions and immigration enforcement.[96] Figure 2 maps the variation in the intensity of the increase in apprehensions per thousand people across districts during the 2007-2011 period.[97] Darker colors represent larger increases in apprehensions per 1,000 people.[98] In 2011, districts that include U.S.-Mexico border states reached yearly apprehension rates of approximately four undocumented per 1,000 people in the population.[99] This implies a potentially sizable change in the supply of some type of workers, particularly those who are less educated and possibly those willing to do manual type of jobs in agriculture, construction, and services. Moreover, if the apprehensions are focused

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[88]   *Infra* Table 2.

[89]   *Infra* Table 2.

[90]   *Infra* Table 2.

[91]   We exclude apprehensions by U.S. Border Patrol.

[92]   *Infra* Figure 1.

[93]   *Infra* Figure 1.

[94]   *Infra* Figure 1.

[95]   *Infra* Figure 1.

[96]   *See infra* Figure 1.

[97]   *Infra* Figure 2.

[98]   The analysis omits Utah, Idaho, Montana, and Nevada because this district cannot be tracked before 2006.

[99]   *Infra* Table 2.

on criminals, heightened enforcement should decrease significantly the number of criminals in the district, thus reducing crime rates.

In terms of labor market effects, we focus on the impacts of enforcement on the group of low-skill U.S.-born workers, which we define according to educational attainment or occupation. Districts with higher apprehension rates exhibit a combination of more intense enforcement and a large share of undocumented immigrants in the population.[100] Comparing these high-enforcement districts to low-enforcement districts during the surge in apprehensions between 2007 and 2011 allows us to test the potential effects of enforcement on the employment and wages of low-skilled natives.

II. DATA, KEY VARIABLES AND HIGH-ENFORCEMENT VERSUS LOW-ENFORCEMENT DISTRICTS

To examine the impact of apprehensions on crime, we use data on crime rates at the state level from the FBI Uniform Crime Reporting Database ("FBI UCR").[101] We aggregate data on violent and non-violent crimes for the seventeen enforcement districts for each year between 2000 and 2015. In addition to total violent crimes and total property crimes, these data provide information on the number of crimes by category. Because of the possibility that enforcement activity affected crime reporting, we look at murders specifically as an extreme form of crime that is less likely to be subject to underreporting.[102] Crime rates express total crimes for each category divided by the total population, as calculated by the FBI UCR, and are calculated as crimes per 100,000 people. Information on labor market outcomes comes from the American Community Survey ("ACS").[103] Specifically, we calculate average wages and aggregate employment rates for various demographic groups in each ICE district and each year in the 2000-2015 period.

All samples are restricted to individuals ages eighteen to sixty-four, and we exclude individuals living in group quarters (jails, institutions, military complex). The employment sample also excludes those attending school and individuals who did not report working a

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[100] *See infra* Table 2.

[101] We downloaded the state-level data directly from the database. UNIFORM CRIME REPORTING STAT., https://www.ucrdatatool.gov/ (last visited July 11, 2018).

[102] One concern in examining crime rates is that immigration enforcement may lead to underreporting of crimes if immigrant communities become hesitant to interact with the police. However, murders should be less subject to underreporting.

[103] Ruggles et al., *supra* note 49.

positive number of weeks in the last year. In addition to these restrictions, we exclude from the wage sample self-employed workers, unpaid family workers, and those who did not report working a positive number of hours. We further restrict the wage sample to those with positive wage income.[104] Weekly wage income is expressed in real 2015 dollars and weighted by weeks and hours worked. All samples are weighed by the ACS personal weight.[105] Alternatively, we define low-skilled workers as those with a high school degree or less, or those with no high school degree. We also include a definition of low-skilled workers based on occupation. Specifically, these occupations include service workers and laborers not in supervisory or management roles based on 1990 Census Bureau occupational classifications.[106] In our data we define likely undocumented immigrants as low-skilled Mexican and Central American non-citizens who arrived after 1986, as this is the group with largest incidence of undocumented immigrants.[107]

A.   Discussion of Trends in High-Enforcement Districts vs. Low-Enforcement Districts

Data on immigration enforcement comes from the Department of Homeland Security's Yearbook of Immigration Statistics.[108] The Office

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[104] These criteria for selection are standard in labor economics and correspond exactly to those used by author George Borjas. *See generally* GEORGE J. BORJAS, IMMIGRATION ECONOMICS (2014).

[105] Personal weights account for the sampling of the survey design in the American Community Survey ("ACS"). They allow us to compute representative statistics for the U.S. population from the sample of people included in the ACS.

[106] We use the variable OCC1990 from IPUMS (Ruggles et al. 2017). *See OCC1990 Variable*, IPUMS USA, https://usa.ipums.org/usa-action/variables/OCC1990#description_ section (last visited July 11, 2018).

[107] Because the 1986 Immigration Reform and Control Act granted amnesty to many immigrants already in the United States, we restrict definition to post-1986 entries. The Center for Migration Studies of New York extends this method to obtain more precise estimates of undocumented immigrants. They first restrict the sample based on year of arrival in the U.S., the requirement of legal status for various occupations, relationship to a U.S. citizen, the receipt of public benefits, country of origin, and age at entry. They combine this with information from the Department of Homeland Security on emigration and residual estimation techniques to obtain estimates of the undocumented population by country of origin. Finally, CMS randomly selects records in the ACS that sum to the correct total population estimates. Robert Warren, *Democratizing Data About Unauthorized Residents in the United States: Estimates and Public Use Data, 2010-2013*, 2 J. ON MIGRATION & HUM. SECURITY 305, 319-22 (2014).

[108] Previously the Statistical Yearbook of the Immigration and Naturalization

of Immigration Statistics annually publishes reports which contain detailed information on immigration enforcement actions. Due to administrative lags in deportation proceedings, we focus on ICE apprehensions rather than removals, as this measure better captures the timing of changes in enforcement and it marks the time when undocumented are removed from the local community and either incarcerated or deported.[109] To characterize differences in enforcement level across ICE districts, we consider the change in enforcement intensity during the surge in apprehensions from 2007-2011. Because the impact of enforcement on crime rates and labor markets depends on apprehensions relative to the adult population, we measure enforcement as the apprehension rate per thousand people age eighteen to sixty-four.[110] High-enforcement districts are the five districts with the greatest 2007-2011 increase in the apprehension rate. Low-enforcement districts are the five districts with the smallest increase in the apprehension rate. We exclude the seven middle districts in our main analysis to sharpen the contrast in changes in enforcement intensity.

Figure 3 shows total apprehensions between 2000 and 2015, grouping districts by level of enforcement.[111] The solid line aggregates apprehensions from the top five enforcement districts, while the dashed line represents the bottom five enforcement districts. Three facts emerge from this figure. First, the 2007-2011 surge in apprehension rates corresponds to a sudden increase in the total number of apprehensions in the high-enforcement districts.[112] As population of these districts was growing slowly this corresponds to a strong increase in apprehension rates.[113] The number of people apprehended in these districts increased by a factor of four.[114] This

Service. Statistics on enforcement by field office are updated to account for the change in district boundaries in 2003. *Yearbook of Immigration Statistics*, *supra* note 84.

[109] Specifically, we sum administrative arrests by the Homeland Security Investigations Special Agent in Charge ("SAC") and Enforcement and Removal Operations ("ERO"). We group states based on ICE ERO Areas of Responsibility. Because the Salt Lake City, Utah ERO district does not have a corresponding SAC office, we exclude this district from our analysis. These states are not high-immigration states and adding the Salt Lake City district does not change our results.

[110] Specifically, the apprehension rate is the total number of ICE apprehensions in a region divided by the population age eighteen to sixty-four in that district (excluding people in group quarters).

[111] *Infra* Figure 3.

[112] *Infra* Figure 3.

[113] *See infra* Figure 3.

[114] *Infra* Figure 3.

was due to the expansion of the 287(g) agreements in these districts after 2007 that deputized local enforcement to act as federal immigration authorities, and the rollout of Secure Communities combined with the fact that a larger share of the population was undocumented in these districts.[115] Second, in the low-enforcement districts, the increase in apprehensions in 2007-2011 was much less pronounced, suggesting minimal effects on the local population.[116] Third, there was a clear reversal beginning in 2011 that was driven by declining apprehensions in districts that experienced the large increase in 2007-2011.[117] This decline coincides with the second term of the Obama administration, when DHS issued memos to ICE prioritizing serious criminals for apprehension and removal.[118] After a period of relatively constant apprehensions prior to 2006 in both high-enforcement and low-enforcement districts, we observe a clear divergence in the apprehension rate between the top and bottom districts from 2007-2011, which partially reversed between 2011-2015.[119]

Due to these features of U.S. immigration enforcement, the 2000-2015 period is a useful setting to conduct a difference-in-differences analysis in which we compare several outcomes in the high-enforcement districts relative to low-enforcement districts across the 2000-2006 pre-surge period, the 2007-2011 surge, and the 2012-2015 decline. If an increase in apprehensions of undocumented immigrants increases labor market opportunities for native workers, we expect to see a positive difference in the change in wages and employment of low-skilled native workers (the closest competitors to undocumented immigrants in the labor market), between high and low-enforcement districts, arising between 2007 and 2011.

III. EMPIRICAL MODEL AND IDENTIFICATION

Our empirical analysis uses a difference-in-differences analysis, in which we compare crime and labor market outcomes in districts with high and low-enforcement (first difference),[120] before and after the surge (second difference). This strategy relies on the assumption that

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[115] *See* GULASKERARAM & RAMAKRISHNAN, *supra* note 73, at 57-58.

[116] *See infra* Figure 3.

[117] *See infra* Figure 3.

[118] *See* Memorandum from Charles Johnsoff, *supra* note 81, at 3.

[119] *See infra* Figure 1.

[120] We define high and low-enforcement districts as the top and bottom five districts according to the increase in the apprehension rate. *See infra* Table 2.

changes in the low-enforcement districts are an appropriate counterfactual for the high-enforcement districts. That is, if enforcement had not changed over this period, changes in outcomes in the high-enforcement districts would have been similar to changes in the low-enforcement districts. This method is often more convincing than a simple comparison of outcomes in high-enforcement districts before and after the surge. Such a comparison would not account for other changes that could affect our outcomes of interest but are driven by factors unrelated to immigration enforcement policy. Our identification focuses specifically on the surge of enforcement that occurred in some districts between 2007 and 2011, relative to others. Specifically, we consider differences between districts that experienced a large surge vis-a-vis those that did not. We call the five districts (which include eleven states) with the largest increase in the apprehension rate from 2007 to 2011 "high-enforcement districts." We define the apprehension rate, a measure of enforcement intensity, in district d and year t as (Apprehensions/Population$_{18\text{-}64}$*1000)$_d$, and categorize districts based on the growth in the apprehension rate during the surge period. We call the bottom five districts by this measure "low-enforcement districts." We drop the districts with intermediate levels of enforcement to increase the contrast between the two groups and improve our identification. Then, we implement a difference-in-differences regression analysis. In this approach, which is broadly used in economics,[121] we consider some units that are receiving a "treatment" through the surge in apprehensions and others that are untreated. We then take the difference between post-treatment and pre-treatment outcomes for treated units relative to the control units. In this case, the treatment consists of the enforcement districts experiencing a significant increase in apprehension intensity (i.e., being in the group of high-enforcement districts). The treatment period corresponds to the years of the surge in overall apprehensions from 2007-2011, and the pre-treatment period is 2000-2006. We estimate the following equation:

$$
\begin{aligned}
y_{dt} = \mu + \alpha_t + \beta_d &+ \gamma_0(High\ Enf_d) + \gamma_1(High\ Enf_d) * (Surge)_t \\
&+ \gamma_2(High\ Enf_d)(Decline)_t + \delta X_{dt} + e_{dt}
\end{aligned}
\tag{1}
$$

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[121] See JOSHUA ANGRIST & JORN-STEFFEN PISCHKE, MOSTLY HARMLESS ECONOMETRICS 227-33 (2009), for a compact presentation of the method.

In equation (1) the variable y_{dt} represents an outcome, either capturing changes in crime rates or capturing changes in labor market outcomes for natives, for district d in year t. The variable ($HighEnf_d$) is an indicator variable equal to one for the five "treated districts," which experienced, that is, the strongest increase in enforcement, and equal to zero for the five low-enforcement districts (we do not include the intermediate districts in this analysis). Similarly, ($Surge$)$_t$ is an indicator equal to one during the surge period from 2007-2011 and ($Decline$)$_t$ is an indicator equal to one for the 2012-2015 decline. The coefficient of interest, γ_1, captures whether the outcome is significantly different between the treatment (high-enforcement) and control (low-enforcement) districts during the treatment period. The terms α_t and β_d are year and district fixed effects, respectively, and δX_{dt} is a vector of district-year level controls which includes the low-skill share of the population, the non-white share of the population, and the lagged dependent variable. Finally, μ is a constant, and e_{dt} represents a zero mean random error that captures idiosyncratic variation across districts.

A more flexible way to capture whether there is any evidence of an effect of the surge in high-enforcement districts is to allow the difference between high-enforcement and low-enforcement districts to change every year. By doing this, one can test whether there was any difference in trends *before* 2007, if any difference arises, gradually or suddenly, after 2007, and if the difference partially reverses after 2011. This way of representing results from a difference-in-difference analysis provide a clearer picture of the dynamics of the treatment effect. We do this by estimating the following regression:

$$y_{dt} = \mu + \alpha_t + \beta_d + \gamma_0(High\ Enf_d) + \sum_{i=2000}^{2005} \gamma_i I(year = i)\,(High\ Enf_d)$$
$$+ \sum_{i=2007}^{2015} \gamma_i I(year = i)\,(High\ Enf_d) + \delta X_{dt} + e_{dt}$$

In expression (2), ($HighEnf_d$) is, again, the dummy for high-enforcement districts, while $I(Year = i)$ is an indicator for year i. The two summations capture the interactions of the high-enforcement (treated) districts and each year before (2000-2005), during (2007-2011), and after the surge in apprehensions (2012-2015). The summations omit year 2006, which standardizes the difference between treatment and control to zero in that year, right before the surge. In the figures of the Appendix below, we show estimates and

ninety-five percent confidence intervals for the coefficients on each year-treatment interaction. These coefficients capture the estimated difference in the outcome between high- and low-enforcement districts in each year. This method allows us to check whether the high- and low-enforcement districts had similar trends before the surge of apprehensions (pre-2007) and if the surge corresponded to a greater difference in the outcome in high-enforcement districts relative to low-enforcement districts.

IV.   Empirical Implementation and Results

A.   Apprehensions and Crime Rates

As the first step of our analysis, we confirm that high-enforcement districts experienced a significant increase in apprehension rates relative to low enforcement districts during the surge period.[122] Table 3 shows the coefficients on the "high-enforcement" dummy (from equation 1) in the first row and the coefficients on this dummy interacted with the surge and the decline periods in rows 2 and 3.[123] The dependent variable is the change in the apprehension rate, defined as apprehensions of undocumented per thousand people in the district. The coefficient of interest is the interaction of high-enforcement districts and the surge period, which captures whether the "treated" group of high-enforcement districts experienced a faster increase in apprehension rates during the surge period. The estimated value of that coefficient is approximately 0.81, in both column (2) which includes only year fixed effects and column (1) which includes also district fixed effects.[124]

These estimates imply that high-enforcement districts experienced a growth of apprehension intensity per thousand people in the surge period that was faster than the growth experienced by low-enforcement districts by about 0.81 units (per thousand people) per year. This is a large and meaningful difference, recalling that, as shown in Table 2, the top apprehension rates in 2011 were around four per thousand and the lowest about 0.5 per thousand.[125] The table also suggests a mild reversal during the period 2012-2015, in that the decline in high-enforcement districts was larger than the decline in low-enforcement districts (negative coefficient), although this

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[122]   *See infra* Table 1.
[123]   *See infra* Table 3.
[124]   *See infra* Table 3.
[125]   *See infra* Table 2.

difference, captured by the coefficient on the interaction between high-enforcement district and decline period, is not statistically significant. Having established that there was a statistically significant faster growth of deportations rates in the treated relative to control districts during the 2007-2011 period, we analyze in Table 4 whether such a surge was associated with any significant decline in crime rates.[126] Column (1) of Table 4 shows the coefficients of equation (1) when the dependent variable is the change in property crimes per 100,000 people.[127]

In column (2), the dependent variable is the change in violent crimes per 100,000 people and, in column 3, it is the change in number of murders per 100,000 people.[128] Notice that, on average, all these crimes declined in the U.S. over the period we consider (2000-2015), as captured by the negative average value of the dependent variable.[129] Two facts stand out in the estimated interaction effects. First, none of the high-enforcement-surge interactions are statistically significant.[130] This implies that there was no measurable difference in changes in crimes rates in districts that experienced large increases in the apprehension rate relative to districts with small increases in the apprehension rate. Second, the point estimates are positive,[131] suggesting that stronger deportation intensity was associated with higher crime growth, but such association was weak and not statistically significant. Neither of these two facts support the idea that strong and aggressive apprehension policies reduce crime.

While the decline of local undocumented population due to deportations was significantly larger in high-enforcement districts, the crime rates did not differ between high and low-enforcement districts.[132] Figure 4 shows the estimated coefficients on the interactions of each year with high-enforcement districts in specification (2) when the dependent variable is changes in the property crime rate (Panel A), the violent crime rate (Panel B) and the murder rate (Panel C).[133] The solid line connects the point estimates and the dashed lines show the ninety-five percent confidence interval of the estimates. The difference in crime rates in the treated group

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[126]   *See infra* Table 4.

[127]   *See infra* Table 4.

[128]   *See infra* Table 4.

[129]   *See infra* Table 4.

[130]   *See infra* Table 4.

[131]   *See infra* Table 4.

[132]   *See infra* Table 4.

[133]   *See infra* Figure 4.

relative to the control group does not show any significant change after 2006, the last year before the surge.[134] The pre-surge period does not show evidence of significant differential trends in crime rates across high-enforcement and low enforcement districts.[135] Looking to the potential effects of the enforcement surge, we fail to find evidence of a significant decline in crime rates in treated districts after 2006, as one would expect if immigration enforcement policies during this period were successful at reducing crime. The post-2006 coefficients are generally positive, implying increases in enforcement are associated with increases in crime rates (rather than a decline), but the coefficients are never significant.[136] An important caveat is that the standard errors are large due to the small number of observations.

Even this dynamic analysis does not reveal a sudden or gradual shift towards lower crime rates for high-enforcement relative to low-enforcement areas, and it does not lend any support to the "crime-reducing" motivation for apprehensions of undocumented immigrants.

B. *Apprehensions and Labor Market Outcomes for Natives*

In terms of labor markets, we focus on the outcomes of less educated native workers, who make up the group potentially competing for jobs held by undocumented immigrants. We also look at the impact on the employment and wages of less educated immigrants who are likely to be undocumented. A pure "labor supply" story would imply that removing immigrants who may supply unskilled labor should improve the employment and wages of similar natives. However, the disruption brought by intense enforcement or the loss of specific skills in the labor market may induce firms to leave the area, depressing job creation and hence labor demand.[137] This may hurt the labor market opportunities of natives.

Before showing the results of the difference-in-differences specification, we show the raw data. Panel A of Figure 5 displays

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[134] *See infra* Figure 4.

[135] *See infra* Figure 4.

[136] *See infra* Figure 4.

[137] These predictions come from economic theory. The institution is that as low-skill immigrants leave, low-skill labor becomes more scare and the price of labor, i.e., the wage of workers, increases. However, uncertainty about future labor supply, particularly if immigrants are complementary to native workers, may impede economic growth or harm sectors that rely on immigrant labor. *See, e.g.*, Gianmarco I.P. Ottaviano & Giovanni Peri, *The Economic Value of Cultural Diversity: Evidence from U.S. Cities*, 6 J. ECON. GEOGRAPHY 9 (2006).

average changes in the employment rate[138] for low-skilled natives (those with high school degree or less) in districts with high (solid line) and low (dashed line) enforcement intensity from 2000-2015.[139] Panel B of Figure 5 displays changes in log wages for the same group of low-skilled natives in high and low-enforcement districts over the same period.[140] We see that changes in both wages and employment rates track each other closely in the two groups of districts both before and during the apprehension surge in 2007-2011.[141]

The pre-2007 similarity suggests that the low-enforcement control group represents a reasonable counter-factual for the high-enforcement treatment group, as the outcomes follow similar paths prior to the surge. If anything, the high-enforcement districts show somewhat more negative changes in employment rates and wages for low-skilled natives, relative to low-enforcement districts between 2007 and 2011.[142] This is prima facie evidence that the surge in apprehensions was not associated with more job opportunities for less educated native workers, in contrast with the predictions of the simple native labor demand-labor supply model.

In Table 5, we show the estimated values of the relevant coefficients from equation (1) when the dependent variable is changes in the employment rate.[143] Specifically, we consider the employment rate of different groups of native workers. In column 1, we consider all U.S. born workers; in column 2, we consider those with at most a high school diploma; in column 3 we consider the group of potentially undocumented immigrants, identified as Hispanic non-citizens with no high school degree who arrived in the U.S. after 1986; in column 4 we consider low-skilled natives identified as those working in service and labor occupations;[144] in column 5, U.S.-born workers with no high school degree.[145] We focus on the coefficient on the high-enforcement-surge interaction which captures the potential difference between treatment and control group during the surge period. This coefficient

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[138] The employment rate for a group is the total number of working-age people employed in that group divided by the total working-age population of that group, subject to the sample restrictions discussed in the previous section.

[139] *See infra* Figure 5.

[140] *See infra* Figure 5.

[141] *See infra* Figure 5.

[142] *See infra* Figure 5.

[143] *See infra* Table 5.

[144] Specifically, low-skilled occupations refer to service workers and laborers in non-supervisory roles. This includes housekeepers and janitors, food service workers, farm workers, and other helpers and laborers.

[145] *See infra* Table 5.

is negative in all specifications and is rarely statistically significant.[146] It is statistically significant at the five percent level in column 4.[147] This implies that districts with a more intense surge in the apprehension rate from 2007-2011 were also those districts where native low-skilled workers had a larger employment *decline*. The point estimates imply that employment growth for low-skilled natives was 0.5 percent slower in high-enforcement districts than in low-enforcement districts.[148] In other words, as the apprehension surge implied in high-enforcement districts an increase by one yearly apprehension per 1000 people, the estimate in column 2 suggests that this was associated with a *decrease* in the employment of low-skilled natives of about 0.5 percent.[149]

While one should be careful to take the point estimates too seriously due to the large margins of error, these results clearly do not support the hypothesis that increases in apprehensions result in positive employment effects on low-skilled natives. We report the estimated effects on log changes in wages in Table 6.[150] Again, the coefficients are mostly negative and rarely statistically significant.[151] In districts with a strong increase in apprehension rates, the wages of low-skilled natives and potentially undocumented immigrants likely declined, relative to low-enforcement districts in the same period.[152] In most cases, the standard errors are too large to provide meaningful statistical evidence of any wage effect.[153] While unobservable factors correlated with apprehensions and labor market outcomes may bias our estimates, the evidence presented so far is inconsistent with any positive effect of apprehensions on job opportunities for low-skilled native workers.

1.   Discussion of Labor Market Results

There are many reasons we may not expect any evidence of a positive relationship between enforcement and native labor market outcomes. The jobs of undocumented workers are likely different from

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[146]   *See infra* Table 5.
[147]   *See infra* Table 5.
[148]   *See infra* Table 5.
[149]   *See infra* Table 5.
[150]   *See infra* Table 6.
[151]   *See infra* Table 6.
[152]   *See infra* Table 6.
[153]   *See infra* Table 6.

jobs held by similar natives.[154] The loss of undocumented labor may force companies to downsize, relocate, or change production techniques.[155] Moreover, with fewer immigrant workers to hire, employers may create fewer jobs for U.S.-born as well.[156] As apprehensions increase, we do not find evidence of jobs accruing to U.S.-born workers.[157] Additionally, the process of apprehensions itself may cause unexpected interruption of production activity, reducing firm productivity and thus also reducing the labor demand for low-skilled natives.[158]

Finally, we estimate the year-specific interactions coefficients from equation (2), again using 2006 as the base year, for changes in employment rates and log wages of low-skilled natives. The four Panels of Figure 6 show these estimates.[159] The outcomes considered are the yearly change in employment of natives with a high school diploma or less (Panel A) or with no high school diploma (Panel B) and the yearly change in log wages of the same two groups (Panel C and Panel D, respectively).[160] Values of the coefficient that are significantly different from zero before 2006 would imply that the high-enforcement treated group and the low-enforcement control group were already experiencing different changes in their labor markets, casting doubt on the identification assumption of similar trends prior the surge.

However, the results do not show any significant divergence in trends for any of the outcomes in the pre-2007 period.[161] This implies similar behavior of labor markets in high-enforcement and low-

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[154] *See* Ottaviano & Peri, *supra* note 35, at 156; Giovanni Peri & Chad Sparber, *Task Specialization, Immigration, and Wages*, 1 AM. ECON. J. APPLIED ECON. 135, 136 (2009).

[155] *See* Ethan Lewis, *Immigration, Skill Mix, and Capital-Skill Complementarity*, 126 Q.J. ECON. 1029, 1031 (2011).

[156] Andri Chassamboulli & Theodore Palivos, *A Search-Equilibrium Approach to the Effects of Immigration on Labor Market Outcomes*, 55 INT'L ECON. REV. 111, 112 (2014).

[157] *See infra* Table 5.

[158] Mexican farm workers in 1960s induced farmers to adopt different crops and techniques that used less labor, with a reduction in their demand of all workers. *See* Michael A. Clemens et al., *Immigration Restrictions as Active Labor Market Policy: Evidence from the Mexican Bracero Exclusion* 26-29 (Nat'l Bureau of Econ. Research, Working Paper No. 23125, 2017). Mexican deportations in the 1930s had no effect on native employment growth, especially in urban areas. *See* Jongkwan Lee et al., *The Employment Effects of Mexican Repatriations: Evidence from the 1930's* 1 (Nat'l Bureau of Econ. Research, Working Paper No. 23885, 2017).

[159] *See infra* Figure 6.

[160] *See infra* Figure 6.

[161] *See infra* Figure 6.

enforcement districts prior to the surge, lending credibility to our identifying assumption. In all cases, we observe a small negative difference between high and low-enforcement districts between 2007 and 2011, which lessens between 2011 and 2015.[162] These years correspond roughly to the surge and decline of apprehensions, and this finding is also consistent with the idea that apprehensions did not help but possibly disrupted the labor market opportunities of low-skilled natives. We interpret these estimates cautiously, as a deep recession occurred between 2007 and 2009[163] and the intensity of the recession varied across the U.S.[164] Other factors might certainly have been in play, despite similar pre-2007 trends and inclusion of various local control variables and district and year fixed effects. Still, the data do not support claims that the labor market conditions of low-skilled natives did improve in high-enforcement districts relative to low-enforcement districts.

C. *Correlates with the Surge in Apprehensions*

While we have found that high-enforcement and low-enforcement districts looked similar in terms of pre-2007 labor market trends for low-skilled workers, the fact that the enforcement surge was so different between the two groups implies a divergence in politics or policies in these districts. In this section we look at some features and characteristics of districts that are correlated with the intensity of the apprehension surge. We argue that these features may have increased the political pressure for enhanced enforcement pushing local enforcement to apply more aggressively policies like 287(g).

Even as we find that more apprehensions do not have a positive impact on the labor market outcomes of low-skilled natives, districts that experienced more wage inequality among their workers may be more fertile ground for advocates of increased enforcement. The actions of local sheriffs and politicians may reflect a response to pressure from such advocates. Districts that experience a large

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[162] *See infra* Figure 6.

[163] The National Bureau of Economic Research dates this recession as lasting from December 2007 to June 2009. *See U.S. Business Cycle Expansions and Contractions*, NAT'L BUREAU ECON. RES. (Sept. 20, 2010), http://www.nber.org/cycles.html.

[164] *See, e.g.*, Murat Tasci & Caitlin Treanor, *Labor Market Tightness Across the United States Since the Great Recession*, FED. RES. BANK CLEV. (Jan. 16, 2018), https://clevelandfed.org/en/newsroom-and-events/publications/economic-commentary/2018-economic-commentaries/ec-201801-labor-market-tightness-across-the-united-states-since-the-great-recession.aspx (discussing labor market condition variations across different states since the Great Recession).

increase in immigrants may also channel the discomfort of natives into more enforcement. Finally, the politics of the Republican party have usually been associated with more demand for immigration enforcement, so we expect to see a correlation between immigration enforcement and Republican political preferences.

In Table 7, we analyze the correlation between the increase in apprehensions from 2007 to 2011 and the share of Republican votes in the 2004 presidential election (column 1).[165] Similarly, we show the OLS correlation of the growth in apprehension rates with the 2000-2006 change in the share of the population that is foreign born (column 2) and the average 2000-2006 share of the population that is foreign born (column 3).[166] Columns 4 and 5 show the average level of wage inequality in 2000-2006, measured as the average ratio of the high-skill employment rate to the low-skilled employment rate (column 4) and the average of the log of the ratio of high-skill wages to low-skilled wages (column 5) from 2000 to 2006.[167] Because we measure the explanatory variables over the period 2000-2006 and the increase in apprehensions during the surge in 2007-2011, these correlations use only seventeen observations.[168] As a consequence, the correlations are only suggestive because the small number of observations does not allow for very precise and robust statistical inference.[169]

We find a higher share of votes to the Republican party, a faster inflow of immigrants, and higher levels of employment and wage inequality are all weakly positively associated with larger increases in apprehension rates.[170] The variable with strongest explanatory power is the share of the Republican party vote, which explains twenty percent of the variation in the increase in enforcement across districts.[171] The share of immigrants and its growth is also associated with post-2007 enforcement intensity. However, this is in part due to the fact that our enforcement intensity measure is larger when immigrants are a larger share of the population (as it standardized

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[165] *See infra* Table 7.

[166] *See infra* Table 7.

[167] *See infra* Table 7.

[168] *See infra* Table 7.

[169] With a small sample size, using the data to make inferences about the population becomes more difficult due to larger standard errors. *See, e.g.*, A. Colin Cameron & Pravin K. Trivedi, Microeconometrics: Methods and Applications 246 (2005).

[170] *See infra* Table 7.

[171] *See infra* Table 7.

apprehensions by total population).[172] In a preliminary sense, these correlations suggest that districts experiencing a faster inflow of immigrants may experience stronger demand from citizens for tougher immigration enforcement. Wage inequality, however, seems only very weakly correlated with enforcement intensity. In the 2007-2011 period, tougher immigration enforcement occurred in the form of more aggressive apprehension policies.[173] While more analysis is needed to understand what determined difference in enforcement across U.S. states, we do not find any evidence that these policies reduced crime rates. They also did not help the wages and employment of low-skilled citizens hurt by the growing inequality. If the policies had an effect at all, our estimated correlations suggest worsened low-skilled job opportunities in the form of employment and wages.

CONCLUSIONS

In this paper, we use data on U.S. immigration enforcement across seventeen districts between 2000 and 2015 to analyze whether an increase in apprehensions of undocumented immigrants reduced crime rates and/or created more job opportunities for native low-skilled workers. The Trump administration has pursued an aggressive enforcement policy for similar reasons.[174] The administration proclaims that these policies will not only enforce the law, but also that they will remove criminals from the streets and improve work opportunities for struggling Americans with lower levels of education, a group of constituents that was central to the electoral success of the administration itself.[175] We test this hypothesis by exploiting variation in apprehension intensity that arose suddenly across districts in the 2007-2011 period from differences in enforcement practices and differences in the size of the undocumented population. In a difference-in-differences analysis, we see that districts that implemented high levels of enforcement and experienced a large increase in apprehensions relative to the size of their population did not experience any change in their crime rates. These districts did not

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[172] *See infra* Table 7.

[173] *See infra* Table 7.

[174] *See infra* Table 7.

[175] Several analyses of the U.S. election 2016 showed that white voters with no college education voted overwhelmingly for Trump. *See, e.g.*, Marci A. Hamilton, *Why Are White, Uneducated Voters Voting for Trump?*, NEWSWEEK (Nov. 1, 2016, 8:20 AM), http://www.newsweek.com/why-are-white-uneducated-voters-voting-trump-515368.

experience any improvement in the employment or wages of low-skilled native workers relative to districts without a sharp increase in apprehensions either.[176] If anything, our point estimates suggest that high-enforcement districts experienced negative effects on the wages and employment of low-skilled US citizens from 2007-2011.[177]

Economists have long stated that immigration does not cause low wage or low employment growth for U.S. workers[178] and that immigration does not seem to be associated with higher crime rates.[179] On the contrary, they have found that immigrants, on average, bring a variety of economic benefits and opportunities for growth and that they do not have high propensity to crime, even when undocumented.[180] This article, by looking at apprehensions and deportations in the recent years, lends additional support to those findings.

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[176] *See infra* Tables 5 & 6.

[177] *See infra* Table 6.

[178] Card, *supra* note 36, at 2.

[179] *See* Kristin F. Butcher & Anne Morrison Piehl, *Cross-City Evidence on the Relationship Between Immigration and Crime*, 17 J. POL'Y ANALYSIS MGMT. 457, 460 (1998); Aaron Chalfin, *What Is the Contribution of Mexican Immigration to U.S. Crime Rates? Evidence from Rainfall Shocks in Mexico*, 16 AM. L. & ECON. REV. 220, 220 (2014); Kristin F. Butcher & Anne Morrison Piehl, *Why Are Immigrants' Incarceration Rates So Low? Evidence on Selective Immigration, Deterrence, and Deportation* 3 (Nat'l Bureau of Econ. Research, Working Paper No.13229, 2007).

[180] *See supra* note 179 and accompanying text; *see also* Giovanni Peri, *The Effect* of *Immigration on Productivity: Evidence from U.S. States*, 94 REV. ECON. STAT. 348, 357 (2012).
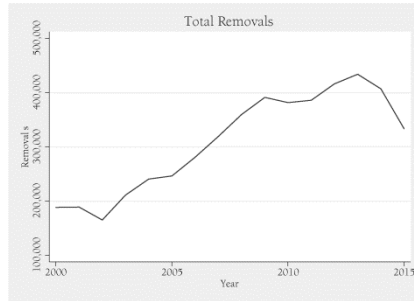
Figure 1: Total Apprehensions and Removals: 2000-2015

Panel A   Panel B
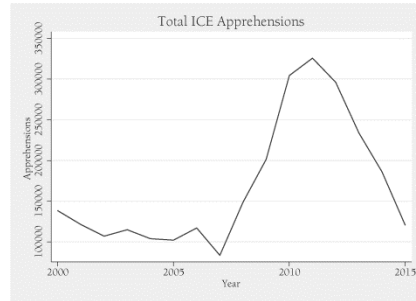
Notes: Panel A displays total yearly apprehensions by ICE Investigative Districts and ICE ERO. Panel B displays total yearly removals by ICE. Total removals include all inadmissible or deportable aliens removed from the U.S. by the federal government.

Table 1: List of ICE Districts and US States within each District

District	Location of District Offices*a*	States
1	Phoenix	Arizona
2*b*	San Diego, San Francisco Los Angeles, Honolulu	CA, HI
3	Denver	CO, WY
4*c*	Miami, Tampa, San Juan	FL
5	Atlanta	GA, NC, SC
6	Chicago	IL, IN, WI, MO, KY, KS
7	New Orleans	AL, AR, LA, MS, TN
8	Boston	CT, ME, MA, NH, RI, VT
9	Baltimore	MD
10	Detroit	MI, OH
11	St. Paul	IO, MN, NE, ND, SD
12	Newark	NJ
13	Buffalo, New York City	NY
14	Philadelphia	DE, PA, WV
15	Dallas, San Antonio, El Paso, Houston	TX, OK, NM
16	Salt Lake City	UT, ID, MT, NV
17	Washington	DC, VA
18	Seattle	AK, OR, WA

a Notes: Table displays the location of ICE ERO (Enforcement and Removal Operations) and Investigative District offices in each ICE district and the group of states included in the district. ICE ERO Areas of Responsibility define the geographic boundaries of each district. In the absence of information on SAC (Special Agent in Charge) district boundaries, we are grouping states based on their ERO offices. There are fewer ERO offices, and no states have a SAC field office that do not have an ERO field office. The Salt Lake City ERO covers Utah, Idaho, Montana, and Wyoming, but these states do not have a corresponding SAC field office so we exclude this district. Honolulu, Tampa, and San Juan are locations for SAC only.

*b* Includes Guam and Saipan.
c Includes Puerto Rico and U.S. Virgin Islands

Table 2: ICE Districts ranked by Intensity of Apprehensions per 1000 people

States	Increase in apprehensions, 2007-2011	Enforcement rank	Apprehension rate in 2011
AZ	0.9061	1	4.0237
TX, OK, NM	0.7870	2	3.9429
CA, HI	0.7193	3	3.3088
GA, NC, SC	0.3428	4	1.8655
CO, WY	0.2720	5	2.3817
DC, VA	0.2616	6	1.6218
FL	0.2374	7	1.5505
AL, AR, LA, MS, TN	0.2190	8	1.1574
AK, OR, WA	0.2033	9	1.4571
IA, MN, NE, ND, SD	0.1684	10	1.1824
IL, IN, WI, MO, KY, KS	0.1534	11	0.8668
NJ	0.1516	12	1.0886
NY	0.1086	13	0.7957
MD	0.0905	14	0.9588
CT, ME, MA, NH, RI, VT	0.0750	15	0.6549
MI, OH	0.0720	16	0.5897
PA, DE, WV	0.0691	17	0.6687

Notes: Figure ranks districts based on growth in the apprehension rate from 2007-2011. The apprehension rate is total ICE Investigative and ERO apprehensions per 1000 people in the district. This measure is correlated with the apprehension rate at peak enforcement intensity in 2011.

Figure 2: Variation in Enforcement Surge
Growth in Apprehension Rate, Surge Period (2007-2011)
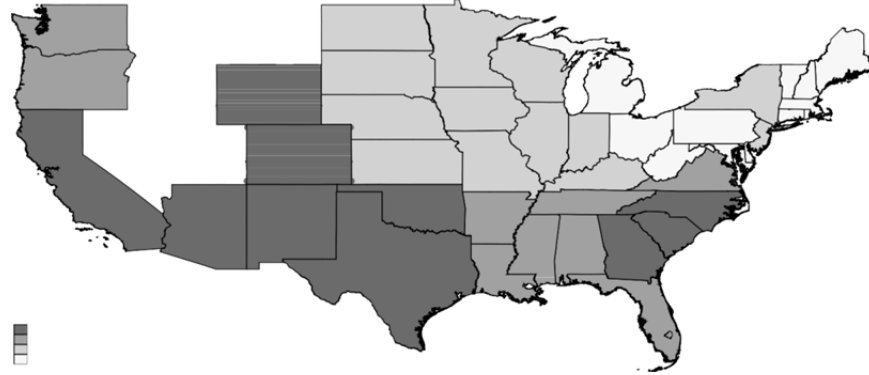
(.2468669,.8637425]
(.1600047,.2468669]
(.0868574,.1600047]
[.0652145,.0868574]

Notes: Map displays growth in the apprehension rate from 2007-2011. The apprehension rate is defined as total ICE Investigative and ERO apprehensions per 1000 people. The geographic units are ICE districts based on ERO Areas of Responsibility. Figure excludes Utah, Idaho, Montana, and Nevada due to a lack of information on apprehensions in the district before 2006.

Figure 3: Total Apprehensions by Intensity of Enforcement, 2000-2015
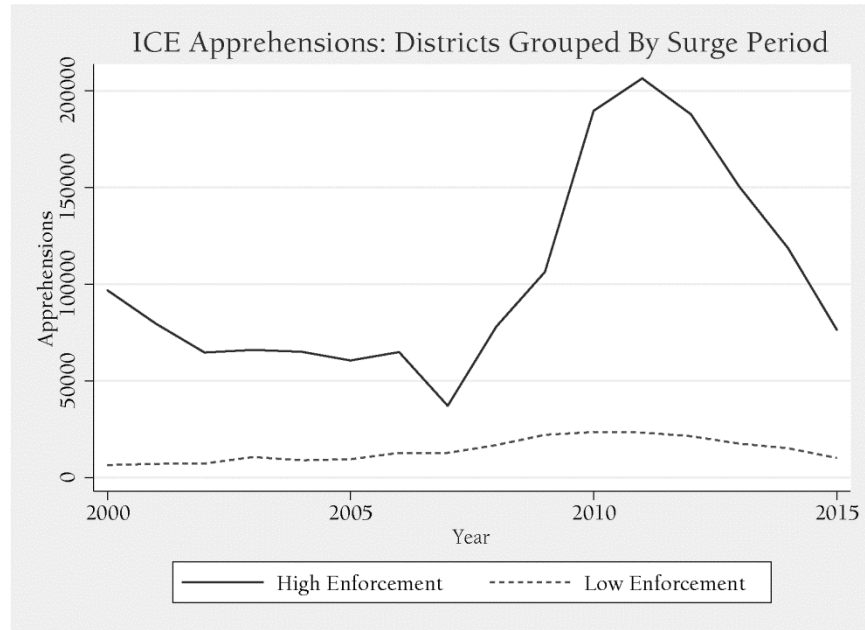
Notes: Figure displays total yearly ICE apprehensions in high-enforcement and low-enforcement districts. The apprehension rate is defined as total ICE Investigative and ERO apprehensions per 1000 people. High-enforcement districts are the five districts with the largest increase in the apprehension rate from 2007-2011. Low-enforcement districts are the five districts with the smallest increase in the apprehension rate from 2007-2011.

Table 3: First Stage, Change in Apprehensions Per 1,000 People

	(1)	(2)
	With FE	Without FE
High-enforcement	-0.390***	-0.280**
	(0.0740)	(0.1069)
High Enf.*Surge	0.809***	0.809***
	(0.2123)	(0.2059)
High Enf.*Decline	-0.102	-0.102
	(0.1002)	(0.0972)
Y Mean	-0.045	-0.045
N	135	135
R2	0.361	0.351

Notes: * p<0.10, ** p<0.05, *** p<0.01

Standard errors are clustered at the district level. All regressions include year fixed effects, and column 1 also includes district fixed effects. The dependent variable is the yearly change in apprehensions per 1000 people. Apprehensions include all ICE Investigative and ERO apprehensions. Geographic units are ICE districts based on ERO Areas of Responsibility. High-enforcement districts are the five districts with the largest increase in apprehensions per capita during the surge period. Low-enforcement districts are the five districts with the smallest increase in apprehensions per capita during the surge period. The surge period is 2007-2011 and the decline is 2012-2015.

Table 4: Change in Crime Rates, 2000-2014

	(1)	(2)	(3)
	Property Crime	Violent Crime	Murder
High-enforcement	-0.886	-2.111**	-0.016
	(6.0948)	(0.8221)	(0.0408)
High Enf.*Surge	1.619	0.037	0.005
	(0.9793)	(0.0934)	(0.0079)
High Enf.*Decline	2.109	0.062	0.003
	(1.1899)	(0.1282)	(0.0038)
Y Mean	-2.329	-0.254	-0.003
N	117	117	117
R2	0.529	0.563	0.310

Notes: * p<0.10, ** p<0.05, *** p<0.01

Standard errors are clustered at the district level. All regressions include year and district fixed effects. Additional controls are the low-skilled share of the population, the non-white share of the population, and the lagged dependent variable. The dependent variable is the annual change in the crime rate. Total crime for each category comes from the FBI Uniform Crime Reporting Database. Crime rates express total crimes for each category divided by the total population, as calculated by the FBI UCR. Crime rates are expressed in crimes per 100,000 people. Geographic units are ICE districts based on ERO Areas of Responsibility. High-enforcement districts are the five districts with the largest increase in apprehensions per capita during the surge period. Low-enforcement districts are the five districts with the smallest increase in apprehensions per capita during the surge period. The surge period is 2007-2011 and the decline is 2012-2015. Apprehensions include all ICE Investigative and ERO apprehensions.

Figure 4: Nonparametric DnD Coefficient Plots, Crime Rates
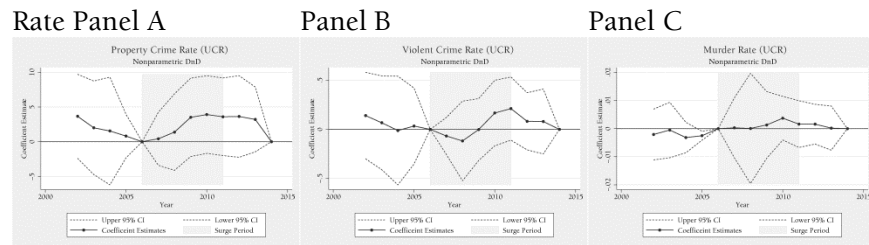
Rate Panel A   Panel B   Panel C

Notes: All figures display coefficient estimates from non-parametric difference-in-differences regressions with the indicator for high-enforcement districts interacted with an indicator for each year with 2006 as the base year. Regressions use a three-year moving average of the property crime rate (Panel A), the violent crime rate (Panel B), or the murder rate (Panel C) as the dependent variable. Regressions include year and district fixed effects and controls for the low-skilled share of the population, the non-white share of the population, and the lagged dependent variable. Total crime for each category comes from the FBI Uniform Crime Reporting Database. Crime rates express total crimes for each category divided by the total population, as calculated by the FBI UCR. Crime rates are expressed in crimes per 100,000 people. The shaded area represents the period of the enforcement surge from 2007-2011. Dashed lines show ninety-five percent confidence intervals. Regressions include year and district fixed effects. Standard errors clustered at the district level.

Figure 5: Changes in Employment and Wages of Low-Skilled Natives by Intensity of Enforcement, 2000-2015

Panel A   Panel B
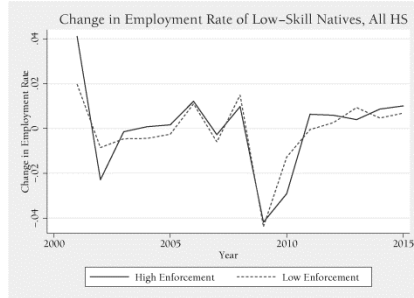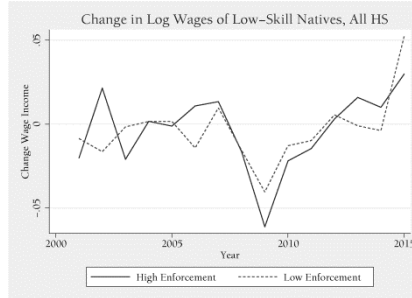
Notes: Panel A displays the average employment rate of low-skilled natives in high-enforcement and low-enforcement districts. Panel B displays the average log wage of low-skilled natives in high-enforcement and low-enforcement districts. Low-skilled natives are U.S. citizens (excluding naturalized citizens) ages eighteen to sixty-four with a high school degree or less. High-enforcement districts are the five districts with the largest increase in the apprehension rate from 2007-2011. Low-enforcement districts are the five districts with the smallest increase in the apprehension rate from 2007-2011. The apprehension rate is defined as total ICE Investigative and ERO apprehensions per 1000 people.

Table 5: Change in Employment, 2000-2015

	(1)	(2)	(3)	(4)	(5)
	Natives	Low Skill Natives	Undocu-mented	Low Occ. Natives	Less than HS Natives
High-enforcement	0.048**	0.058***	0.006	0.070**	0.068
	(0.0192)	(0.0169)	(0.0769)	(0.0283)	(0.0463)
High Enf.* Surge	-0.004	-0.006	-0.014	-0.005**	-0.003
	(0.0025)	(0.0035)	(0.0083)	(0.0018)	(0.0035)
High Enf.* Decline	0.001	0.001	0.001	0.001	0.002
	(0.0023)	(0.0028)	(0.0039)	(0.0032)	(0.0068)
Y Mean	-0.001	-0.003	0.002	-0.004	-0.006
N	126	126	126	126	126
R2	0.866	0.824	0.346	0.800	0.698

Notes: * $p<0.10$, ** $p<0.05$, *** $p<0.01$

Standard errors are clustered at the district level. All regressions include year and district fixed effects. Additional controls are the low-skilled share of the population, the non-white share of the population, and the lagged dependent variable. The dependent variable is the annual change in the employment rate of working age individuals. Natives are non-naturalized U.S. citizens and low-skilled natives are those with a high school degree or less. Potentially undocumented are non-citizens of Mexican or Central American origin with a high school degree or less who arrived in the U.S. after 1986. Low-occupation natives are service workers and laborers in non-supervisory roles. Less than HS natives are those without a high school degree, GED, or equivalent. Geographic units are ICE districts based on ERO Areas of Responsibility. High-enforcement districts are the five districts with the largest increase in apprehensions per capita during the surge period. Low-enforcement districts are the five districts with the smallest increase in apprehensions per capita during the surge period. The surge period is 2007-2011 and the decline is 2012-2015. Apprehensions include all ICE Investigative and ERO apprehensions.

Table 6: Change in Log Wages, 2000-2015

	(1)	(2)	(3)	(4)	(5)
	Natives	Low Skill Natives	Undocumented	Low Occ. Natives	Less than HS Natives
High-enforcement	0.091	0.052	-0.095	0.135*	0.066
	(0.0530)	(0.0539)	(0.2898)	(0.0612)	(0.1633)
High Enf.*Surge	-0.007	-0.020*	-0.031	-0.010	-0.011
	(0.0061)	(0.0093)	(0.0248)	(0.0099)	(0.0151)
High Enf.*Decline	-0.002	-0.007	-0.010	-0.005	-0.001
	(0.0070)	(0.0092)	(0.0252)	(0.0064)	(0.0115)
Y Mean	0.001	-0.003	0.008	-0.006	-0.007
N	126	126	126	126	126
R2	0.582	0.541	0.407	0.519	0.514

Notes: * p<0.10, ** p<0.05, *** p<0.01

Standard errors are clustered at the district level. All regressions include year and district fixed effects. Additional controls are the low-skilled share of the population, the non-white share of the population, and the lagged dependent variable. The dependent variable is the annual change in the log wage of working age individuals. Natives are non-naturalized U.S. citizens and low-skilled natives are those with a high school degree or less. Potentially undocumented are non-citizens of Mexican or Central American origin with a high school degree or less who arrived in the U.S. after 1986. Low-occupation natives are service workers and laborers in non-supervisory roles. Less than HS natives are those without a high school degree, GED, or equivalent. Geographic units are ICE districts based on ERO Areas of Responsibility. High-enforcement districts are the five districts with the largest increase in apprehensions per capita during the surge period. Low-enforcement districts are the five districts with the smallest increase in apprehensions per capita during the surge period. The surge period is 2007-2011 and the decline is 2012-2015. Apprehensions include all ICE Investigative and ERO apprehensions.

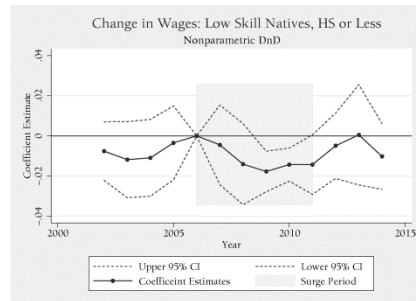Figure 6: Nonparametric DnD Coefficient Plots, Low-Skilled Natives
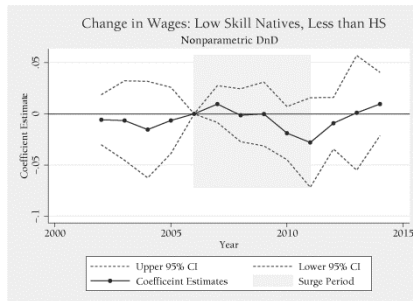
High School and Less Panel A
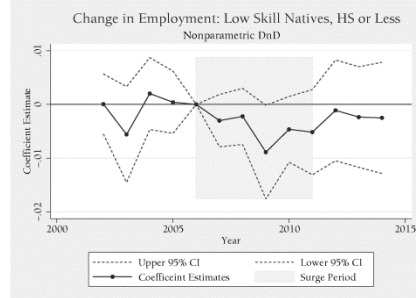
Less than High Panel B
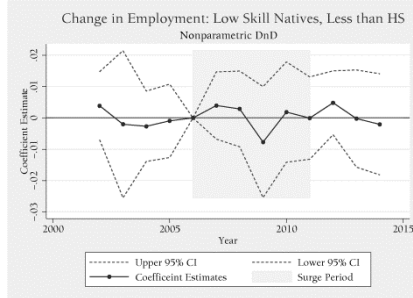
Panel C

Panel D

Notes: All figures display coefficient estimates from non-parametric difference-in-differences regressions with the indicator for high-enforcement districts interacted with an indicator for each year with 2006 as the base year. Regressions use a three-year moving average of employment (Panel A and Panel B) or log wages (Panel C and Panel D) as the dependent variable. Regressions include year and district fixed effects and controls for the low-skilled share of the population, the non-white share of the population, and the lagged dependent variable. We define low-skilled by education using two common cutoffs: Panels A and C show results for natives with a high school degree or less, while panels B and D show results for natives with strictly less than a high school degree. The shaded area represents the period of the enforcement surge from 2007-2011. Dashed lines show ninety-five percent confidence intervals. Regressions include year and district fixed effects. Standard errors clustered at the district level.

Table 7: Predictors of Enforcement Surge

	(1)	(2)	(3)	(4)	(5)
	Enforce-ment	Enforce-ment	Enforce-ment	Enforce-ment	Enforce-ment
Percent Republican	0.020*				
	(0.0100)				
Foreign-Born Change		45.649			
		(47.6792)			
Share FB, 2000-2006			1.314*		
			(0.7058)		
High/Low Empl., 2000-2006				0.571	
				(2.1647)	
High/Low Wage, 2000-2006					0.587
					(0.9256)
N	17	17	17	17	17
R2	0.207	0.058	0.188	0.005	0.026

Notes: For all regressions, the outcome variable is the change in apprehension rate from 2007-2011. The dependent variables are the share of Republican votes in the 2004 presidential election, the change in the share of the population that is foreign-born, the average share of the population that is foreign-born, the average ratio of the high-skilled employment rate to the low-skilled employment rate, and the average of the log of the ratio of high-skill wages to low skill wages. All dependent variables are measured between 2000-2006.