Border Apprehensions and Federal Sentencing of Hispanic Citizens in the United States

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What do we do?

Research question: Is the extent of discrimination against Hispanic citizens influenced by the salience of the Hispanic identity in the US?

Identification:

- Challenge: Differences in average sentence length between Hispanic citizens and non-Hispanic citizens do not necessarily reflect discrimination, as they can be confounded by unobserved heterogeneity.
- Id. strategy: The effect of ethnicity on discrimination can be therefore identified only if some factors that are orthogonal to the unobserved characteristics of the defendants i) deteriorate natives' attitudes toward them, or ii) induce a shift in the salience of ethnicity in defining natives' perception of their identity.

What do we do?

Data:

- Orthogonal variation: Monthly border apprehensions along the southern border (US border patrol) to capture meaningful and plausible exogenous local variations in the salience of the Hispanic identity.
- Outcome: Sentencing disparities for Hispanic citizen offenders in the US Federal Criminal Justice System (USSC).

Empirical Strategy: We compute a time-varying (monthly) and district-specific measure of apprehensions of illegal aliens to capture the extent of the exposure of different Federal districts in the US to border apprehensions at the time of sentencing.

Main results

- Unconditional gap: Hispanic citizens receive, ceteris paribus, a sentence that is 2.6 months longer than White citizens.
- Time-varying bias: The sentencing differential between Hispanic and White citizens gets significantly larger when border apprehensions are higher.
- Magnitude: A 1 std. dev. increase in our measure of border apprehensions increases the length of the sentence for Hispanic citizens by 13 days.
- Salience vs. deteriorated attitudes: The effect is at play only for low-information cases, and it is totally absent for Hispanic non-citizens.

Main contributions

We mainly contribute to 3 main strands of the literature:

1. Racial disparities in sentencing in the US. Lit. 1.
   - Usually Black vs. White defendants. Fewer studies on Hispanics.
2. Time-varying bias and noise in sentencing. Lit. 2.
   - Shayo and Zussman (*QJE*, 2011): In-group bias.
   - McConnell and Rasul (*JOLE*, 2021): Contagious animosity.
   - Philippe and Ouss (*JPE*, 2018): Media reports of unrelated crimes.
3. Salience of identity and priming effects. Lit. 3.
   - Barrera et al. (*JPubE*, 2020).
   - Colussi et al. (*AEJ:AE*, 2021).
   - Alesina et al. (*RES*, 2022).
   - Schneider-Strawczynski & Valette (2022).

Data

Data | Sources

We mainly use two sources of data:

1. Case-level data from the US Sentencing Commission.
   - $\sim$ 1 million obs.
   - Only offenses violating the Federal Law.

2. Monthly data on illegal alien apprehensions from the US Border Patrol.

Our period of analysis is October 2001 to September 2017 (fiscal years).

Federal CJS Timeline

Sentencing is the sole responsibility of federal judges. Matching between defendants and judges is random (Cohen and Yang, 2019).

We use data on border apprehensions at the time of sentencing.

1. Offense
2. Arrest
3. Conviction
   - Plea
   - Trial (3 to 7 days)
4. Sentencing (3 months after the offender has been convicted)

   The objective elements that represent the basis of the judgment are predetermined and uncorrelated with temporary variations in border apprehensions.

US Sentencing Guideline

USSC guideline used to compute sentencing ranges for similar crimes to reduce sentencing disparities and limit the discretion of federal judges in sentencing.

- Final offense level (43)
- Criminal History category (6)

⇓

Sentencing range

Federal judges may depart from the advisory guideline range but this has to be justified in the sentence i.e. variations inside sentencing grids are less “costly” than across.

	Offense Level	Criminal History Category (Criminal History Points) I (0 or 1)	II (2 or 3)	III (4, 5, 6)	IV (7, 8, 9)	V (10, 11, 12)	VI (13 or more)
	1	0–6	0–6	0–6	0–6	0–6	0–6
	2	0–6	0–6	0–6	0–6	0–6	1–7
	3	0–6	0–6	0–6	0–6	2–8	3–9
Zone A	4	0–6	0–6	0–6	2–8	4–10	6–12
	5	0–6	0–6	1–7	4–10	6–12	9–15
	6	0–6	1–7	2–8	6–12	9–15	12–18
	7	0–6	2–8	4–10	8–14	12–18	15–21
	8	0–6	4–10	6–12	10–16	15–21	18–24
	9	4–10	6–12	8–14	12–18	18–24	21–27
Zone B	10	6–12	8–14	10–16	15–21	21–27	24–30
	11	8–14	10–16	12–18	18–24	24–30	27–33
Zone C	12	10–16	12–18	15–21	21–27	27–33	30–37
	13	12–18	15–21	18–24	24–30	30–37	33–41
	14	15–21	18–24	21–27	27–33	33–41	37–46
	15	18–24	21–27	24–30	30–37	37–46	41–51
	16	21–27	24–30	27–33	33–41	41–51	46–57
	17	24–30	27–33	30–37	37–46	46–57	51–63
	18	27–33	30–37	33–41	41–51	51–63	57–71
	19	30–37	33–41	37–46	46–57	57–71	63–78
	20	33–41	37–46	41–51	51–63	63–78	70–87
	21	37–46	41–51	46–57	57–71	70–87	77–96
	22	41–51	46–57	51–63	63–78	77–96	84–105
	23	46–57	51–63	57–71	70–87	84–105	92–115
	24	51–63	57–71	63–78	77–96	92–115	100–125
	25	57–71	63–78	70–87	84–105	100–125	110–137
	26	63–78	70–87	78–97	92–115	110–137	120–150
	27	70–87	78–97	87–108	100–125	120–150	130–162
Zone D	28	78–97	87–108	97–121	110–137	130–162	140–175
	29	87–108	97–121	108–135	121–151	140–175	151–188
	30	97–121	108–135	121–151	135–168	151–188	168–210
	31	108–135	121–151	135–168	151–188	168–210	188–235
	32	121–151	135–168	151–188	168–210	188–235	210–262
	33	135–168	151–188	168–210	188–235	210–262	235–293
	34	151–188	168–210	188–235	210–262	235–293	262–327
	35	168–210	188–235	210–262	235–293	262–327	292–365
	36	188–235	210–262	235–293	262–327	292–365	324–405
	37	210–262	235–293	262–327	292–365	324–405	360–life
	38	235–293	262–327	292–365	324–405	360–life	360–life
	39	262–327	292–365	324–405	360–life	360–life	360–life
	40	292–365	324–405	360–life	360–life	360–life	360–life
	41	324–405	360–life	360–life	360–life	360–life	360–life
	42	360–life	360–life	360–life	360–life	360–life	360–life
	43	life	life	life	life	life	life

Case-level data from the US Sentencing Commission

The database includes, for each case:

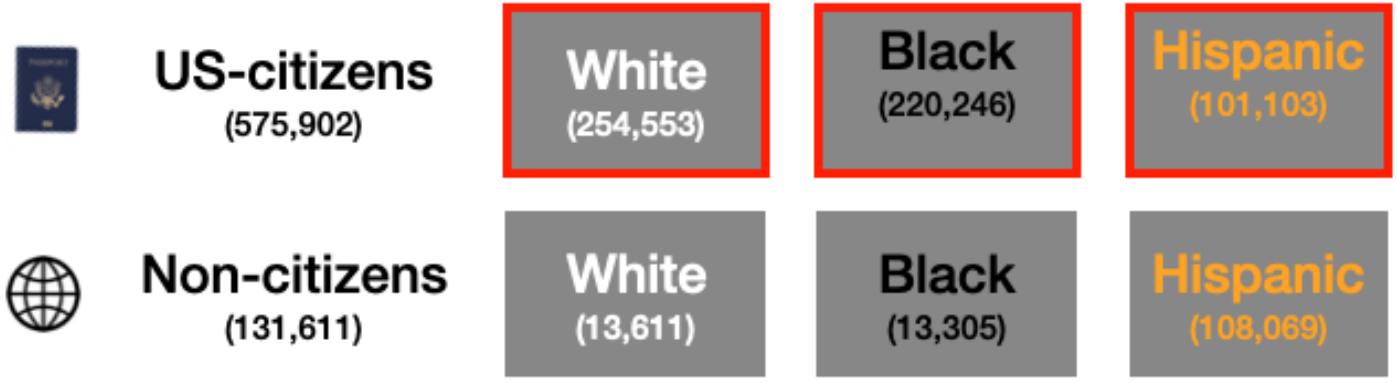
1. The sentence in months of imprisonment.
2. Information on the district and month of the sentence.
3. Information on race, ethnicity and citizenship. Identity
4. Rich individual-level information (sex, age, level of education, ...).
5. Information about the case (type and severity of the offense, trial vs. plea), and about the previous criminal history of the defendant.

Note: No information on sentencing day, country of birth, or judge identity (except for a sub-sample of observations from another database).

USSC data | Race and Ethnicity

We use the information on race (White vs. Black) and ethnicity (Hispanic vs. non-Hispanic) to classify defendants across six (mutually exclusive) groups:

Benchmark sample: Citizens only



We exclude immigration offenses (human smuggling charges) for which apprehensions might convey legally relevant information to the federal judges (directives by the attorney general to be tough on immigration offenses could violate the identifying assumption). Offense type

District exposure to illegal alien apprehensions

Data come from the US Border Patrol and are available for the 2000-2017 period at the monthly level.

63,032 individuals were arrested each month between January 2000 and September 2017 at the US southern border ($Sd = 40,251$).

We restrict our analysis only to the nine sectors at the US-Mexico Border (98% of all apprehensions). Map

Almost all apprehensions relate to Hispanic migrants: Mexico (42%), Guatemala (21%), El Salvador (16%) and Honduras (15%) in 2007.

District exposure to illegal alien apprehensions

We compute a district-specific measure of apprehensions to capture the salience of the Hispanic identity of the defendants for Federal judges:

$$\text{Border app}_{cmy} = \sum_{s=1}^{9} \frac{1}{\text{dist}_{cs}} \times \text{Border app}_{smy}$$

Proxy for the extent of the exposure of judges in different Federal districts to border apprehensions.

Google Trends

Note: Robust to normalizing the sum of weights to the mean.

Empirical strategy

Benchmark specification

Sentence_{icmy} = Sentence length (month of imprisonment) for the defendant i, sentenced in the district court c ($c = 1, ..., 90$) in the month m of the year y ($y = 2001, ..., 2017$).

$$\text{Sentence}_{icmy} = \alpha \text{Border app}_{cmy} +$$
$$\beta_1 \text{Hispanic}_i \times \text{Border app}_{cmy} + \beta_2 \text{Black}_i \times \text{Border app}_{cmy} +$$
$$\boxed{\textit{Fixed effects}} + \epsilon_{icmy}$$

- Coefficient of interest: β_1 is the differential effect of variations in border apprehensions on the sentences received by Hispanic defendants.
- Identifying assumption: Border app_{cmy} is orthogonal to ϵ_{icmy}.
- Standard errors: Clustered at the district level.

Benchmark specification | Fixed effects and controls

$$\text{Sentence}_{icmy} = \alpha \text{Border app}_{cmy} +$$

$$\beta_1 \text{Hispanic}_i \times \text{Border app}_{cmy} + \beta_2 \text{Black}_i \times \text{Border app}_{cmy} +$$

$$\underbrace{\text{Hispanic}_i \times d_c + \text{Black}_i \times d_c}_{\text{Group} \times \text{District FE } (2 \times 90)} + \underbrace{\text{Hispanic}_i \times d_y + \text{Black}_i \times d_y}_{\text{Group} \times \text{Year FE } (2 \times 17)} +$$

$$\underbrace{d_{\text{history}} \times d_{\text{offense level}}}_{\text{Grids FE } (6 \times 43)} + \underbrace{d_{\text{offense type}}}_{\text{Offense Type FE } (32)} + \underbrace{d_{\text{trial}}}_{\text{Trial vs. Plea}} +$$

$$\underbrace{d_c \times d_y}_{\text{District} \times \text{Year } (90 \times 17)} + \underbrace{d_m \times d_y}_{\text{Month} \times \text{Year } (17 \times 12)} + \underbrace{\gamma' \mathbf{X}_i}_{\text{Indiv. controls}} + \epsilon_{icmy}$$

Note: FEs absorb $\sim$ 80% of the overall variability. Controls

Benchmark specification | Identifying variability

The identifying variability only comes from the correlation

between

- The average difference in sentence length between Hispanic and non-Hispanic White citizens judged in different months of the same year for the same type of offense, with the same past criminal history and offense level in a given district court.

and

- The values of our district-level measure of exposure to border apprehensions in that district across months of that year.

Main Results

Benchmark estimates | Full Table

	(1)	(2)	(3)
Black	5.021***		
	(0.361)		
Hispanic	2.647***		
	(0.359)		
Border app.		-0.005	-0.006
		(0.003)	(0.004)
Hispanic × Border app.		0.009***	0.011***
		(0.003)	(0.002)
Black × Border app.			0.006
			(0.006)
Individual controls	Yes	Yes	Yes
Criminal History × Offense level	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes
District × Year	Yes	Yes	Yes
Group × District	No	Yes	Yes
Group × Year	No	Yes	Yes
Observations	575,901	575,901	575,901
Adjusted R^2	0.771	0.772	0.772
Std. dev. Border app.	46.808	46.808	46.808
Mean Sentence (White)	50.990	50.990	50.990
Mean Sentence (Black)	74.991	74.991	74.991
Mean Sentence (Hispanic)	57.479	57.479	57.479

Benchmark estimates | Interpretation

Magnitude: A one-standard-deviation increase in our district-level measure of border apprehensions results in a $0.009 \times 46.808 = 0.42$ months (13 days) increase in the differential in sentence length between Hispanic and non-Hispanic defendants.

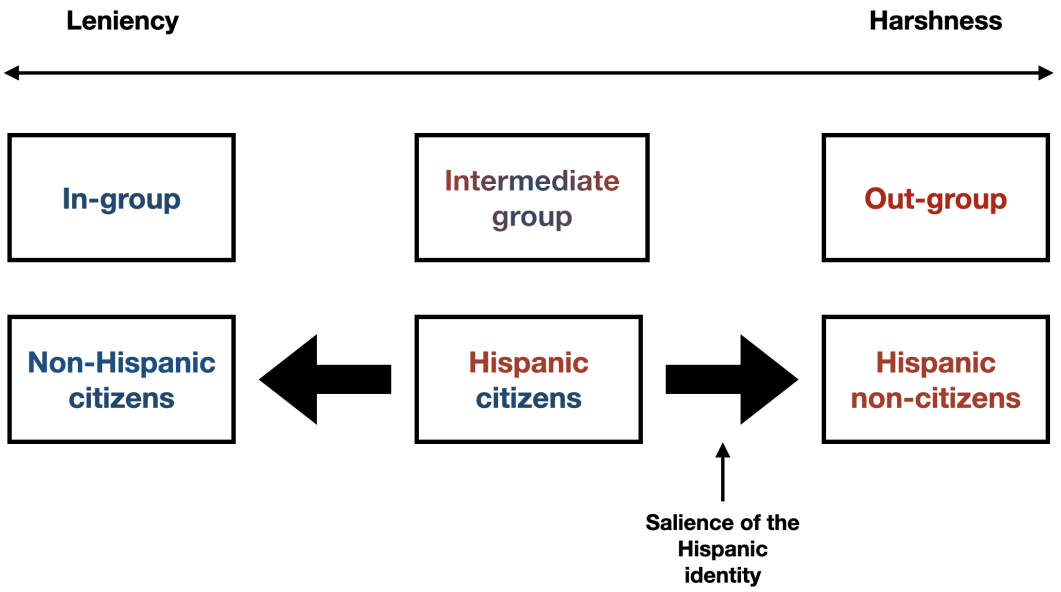
This represents roughly 16% of the estimated time-invariant differential of 2.65 months.

Two plausible explanations:

1. Deteriorated Attitudes: Apprehensions deteriorate attitudes of Federal judges toward Hispanic defendants.
2. Salience: Apprehensions increase the salience of the Hispanic ethnic identity of the defendants, who are perceived as belonging to the outgroup (Hispanic non-citizens).

Benchmark estimates | Salience Interpretation

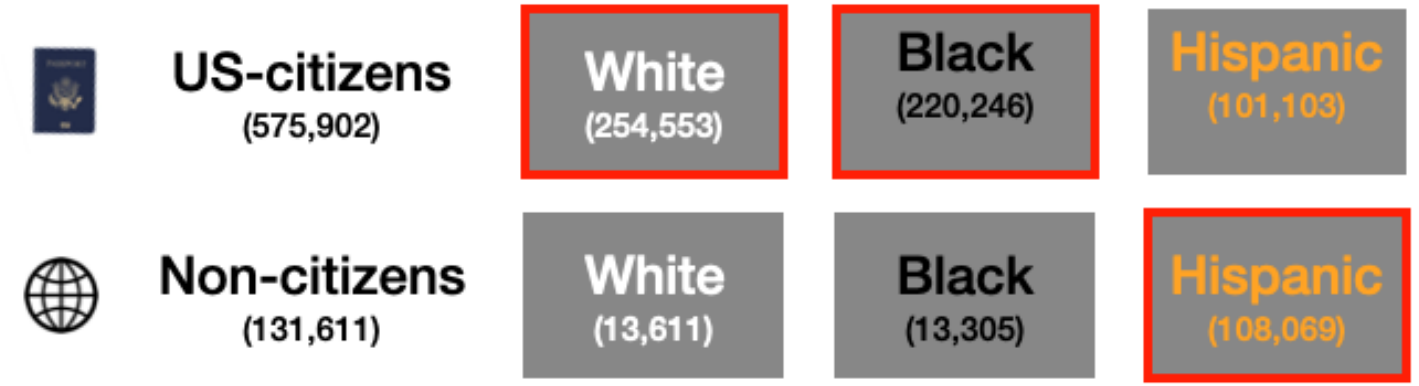
Bordalo et al. (2022): "[p]rominence refers to the idea that stimuli highly available to our senses or in our memory are more significant [...] stimuli that have recently attracted attention continue to do so, even if they are no longer task-relevant [...].



Border apprehensions of Hispanic illegal aliens can increase the prominence of the Hispanic identity of the defendant for Federal judges, who have a limited time to deal with each case.

Testable assumption

	Hispanic penalty	
	Citizens	Non-citizens
Negative attitudes	+	+
Salience	+	Ø
Both	+	+



Placebo estimates

	(1)	(2)	(3)
Black	4.937***		
	(0.363)		
Hispanic	6.579***		
	(0.511)		
Border app.		-0.001	-0.002
		(0.003)	(0.003)
Hispanic × Border app.		0.003	0.004
		(0.004)	(0.004)
Black × Border app.			0.005
			(0.006)
Individual controls	Yes	Yes	Yes
Criminal History × Offense level	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes
District × Year	Yes	Yes	Yes
Group × District	No	Yes	Yes
Group × Year	No	Yes	Yes
Observations	582,867	582,867	582,867
Adjusted R^2	0.776	0.777	0.777
Std. dev. Border app.	50.611	50.611	50.611
Mean Sentence (White)	50.990	50.990	50.990
Mean Sentence (Black)	74.991	74.991	74.991
Mean Sentence (Hispanic)	54.526	54.526	54.526

Additional estimates

Additional estimates

We perform various robustness checks:

- Time-varying offense-specific severity ▷
- Judge Fixed effects (Subsample from JUSTFAIR database) ▷
- Road distance ▷
- 2000-2017 sample ▷
- Alternative clustering ▷
- Alternative dependent variables ▷
- Normalized weights ▷
- Under-weighting ▷

Heterogeneity analysis

We check whether our main effect varies systematically with:

1. Past criminal history ▷
2. Primary offense type ▷
3. Defendant's characteristics ▷
4. Judges' political appointment ▷
5. Districts along the border ▷

Conclusions

Conclusions

Hispanic citizens receive sentences that are closer to the (longer) sentences received by Hispanic immigrants when the salience of their ethnic identity increases.

A one standard deviation increase in our district-specific measure of border apprehensions is associated with 13 additional days of imprisonment for Hispanic citizens.

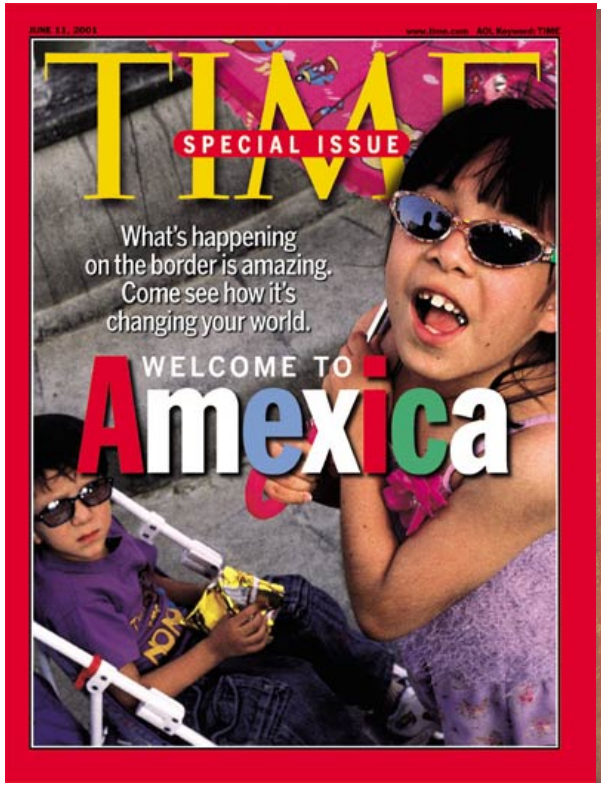
External validity: Federal judges are life-appointed and should be less exposed to factors that are legally irrelevant in sentencing. What about elected judges in the State Court System?

Is discrimination also time-varying and correlated with minorities' salience also in other domains, e.g., the labor market?

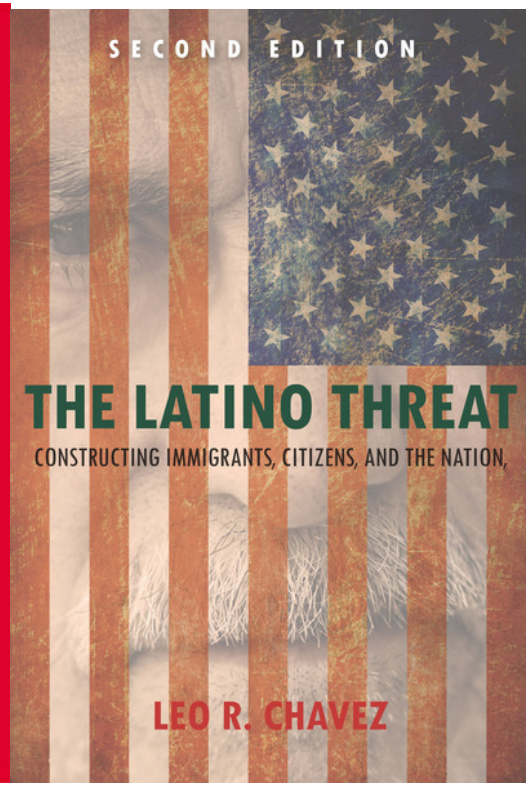
Welcome to Amexica and the Latino Threat

Back

Increasing concerns on the rising number of US residents originating from Latin American countries.



(a) Cover of Time, June 11, 2001.



(b) *The Latino Threat*, L. Chavez (2013).

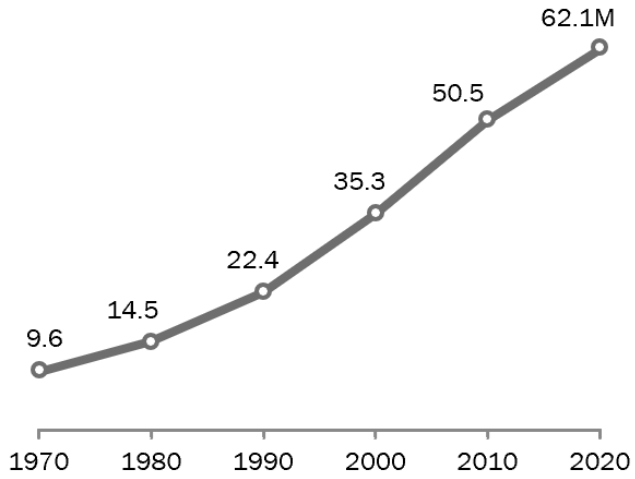
US Hispanic population

Back

Increasing concerns on the rising number of US residents originating from Latin American countries.

U.S. Hispanic population reached more than 62 million in 2020

In millions



Note: Population totals are as of April 1 for each year. Hispanics are of any race.
Source: Pew Research Center analysis of 1970-1980 estimates based on decennial censuses (see 2008 report "U.S. Population Projections: 2005-2050"), 1990-2020 PL94-171 census data.

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Negative stereotypes

Back

One of the typical negative stereotypes that Hispanics face in the US is being repeatedly portrayed as criminals.

Latinos Are Underrepresented in Hollywood, Study Finds:

“[O]f the 100 top-grossing films each year from 2007 to 2018, only three percent featured Latino actors in lead or co-lead roles. [...] Latino characters ended up playing into unfounded stereotypes. Nearly one-quarter of speaking roles portrayed them as criminal.”

The New York Times, August 26, 2019.

US Federal District Courts

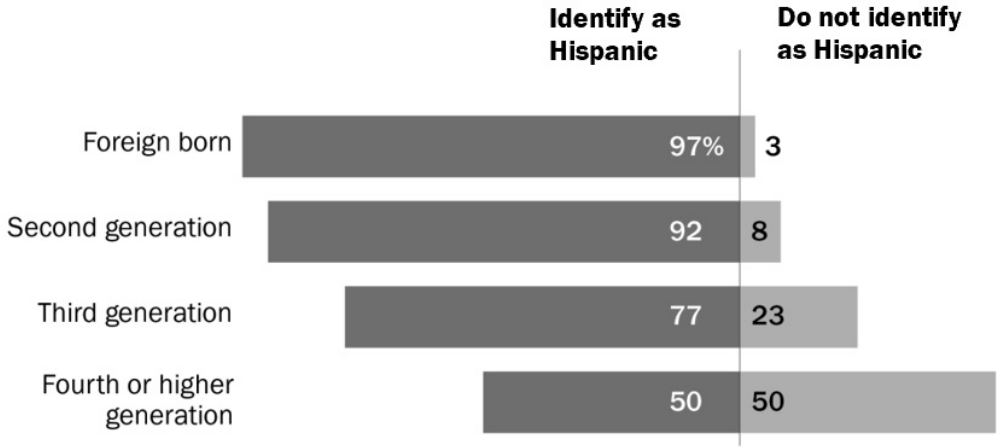
Back

Self-identification | Hispanic ethnicity

Back

Among Americans with Hispanic ancestry, share that identifies as Hispanic or Latino declines across immigrant generations

% of U.S. adults with Hispanic ancestry who ...



Note: Hispanics are those who say they are Hispanic. Those who do not self-identify as Hispanic say they are not Hispanic or Latino but say they have Hispanic ancestry or heritage. "Second generation" refers to those born in the 50 states or the District of Columbia to at least one immigrant parent. "Third generation" refers to those born in the 50 states or D.C., with both parents born in the 50 states or D.C and at least one immigrant grandparent. "Fourth or higher generation" refers to those born in the 50 states or D.C. with parents and all four grandparents born in the 50 states or D.C.
Source: Pew Research Center 2015 National Survey of Latinos (Oct. 21-Nov. 30, 2015) and survey of self-identified non-Hispanics with Hispanic ancestry or heritage only (Nov. 11, 2015-Feb. 7, 2016).
"Hispanic Identity Fades Across Generations as Immigrant Connections Fall Away"

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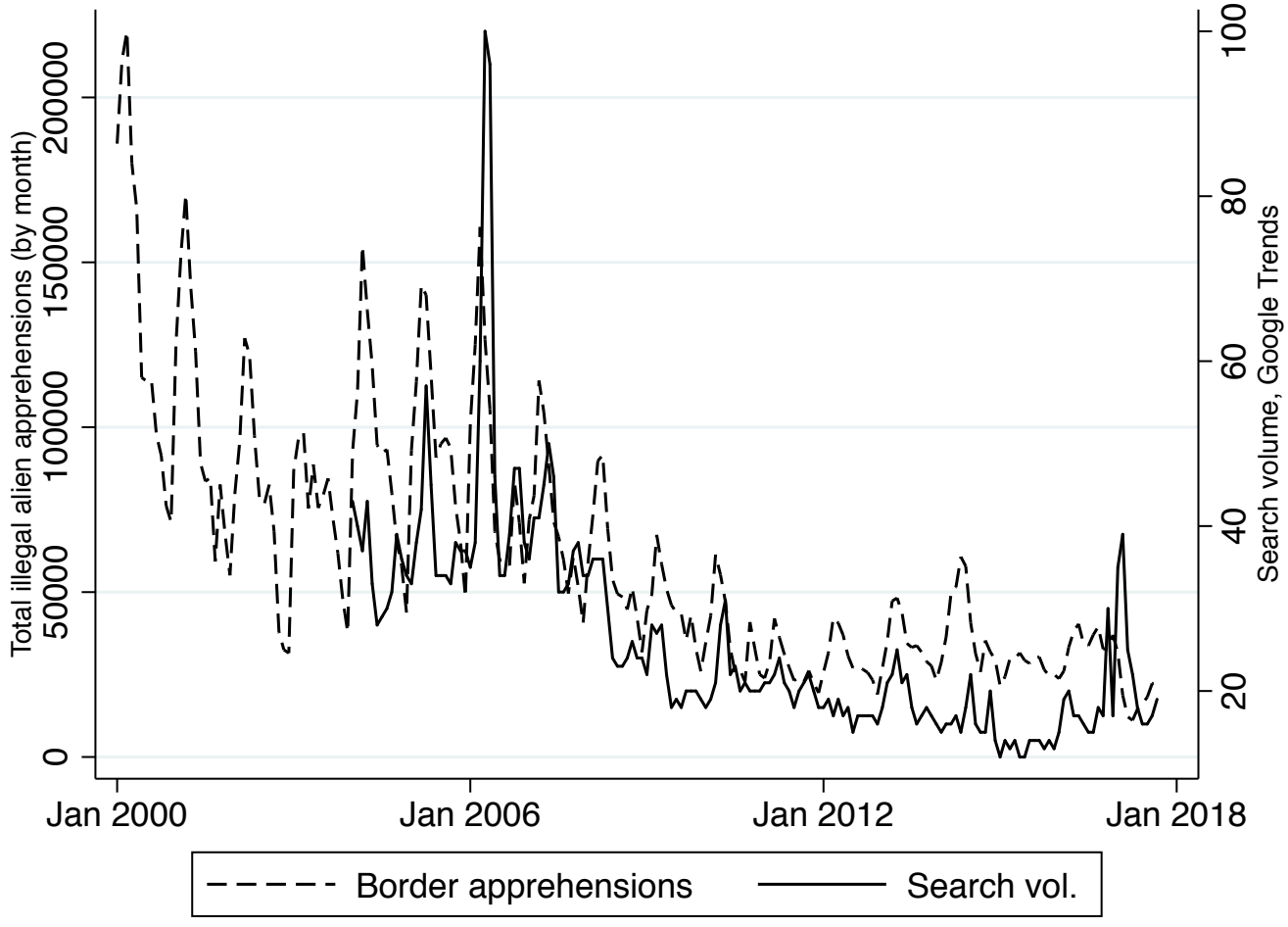
Public interest for immigration and border apprehensions

Back

- We collected data from Google Trends on the 2004-2017 period to obtain information on public interest towards immigration in the US at the monthly level.
- We focused on the broad “immigration policy and border issues” category both at the national and state levels.

Google Trends and apprehensions (2004-2017)

Back



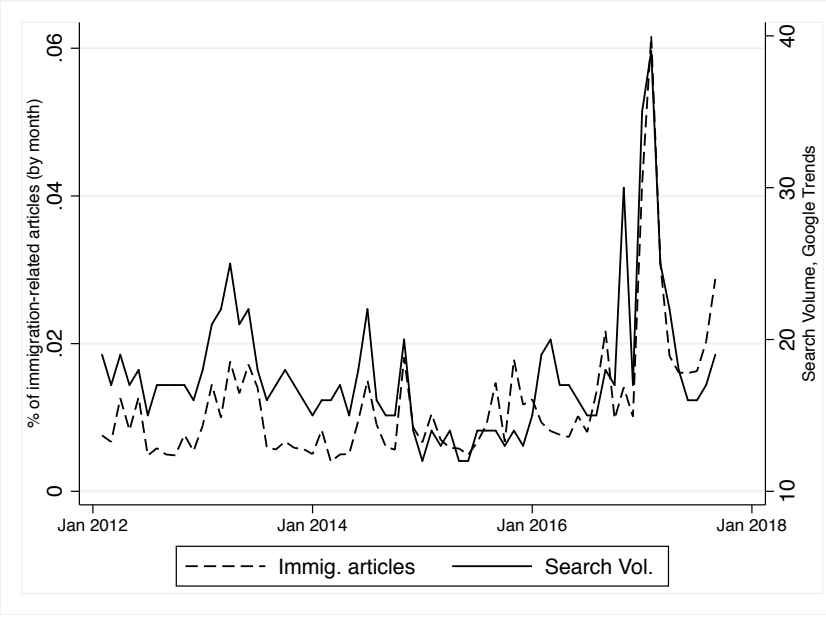
State-level monthly data

Back

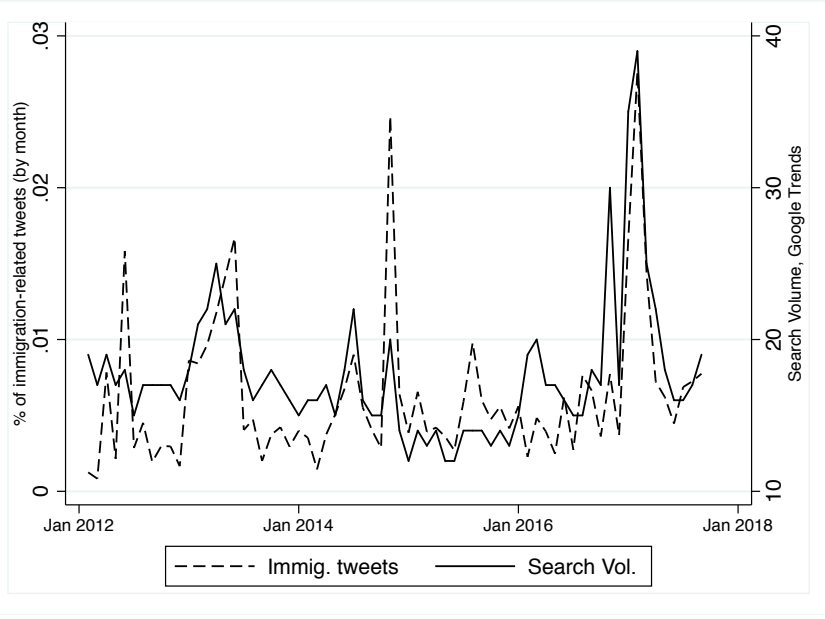
	Google Trends		
	(1)	(2)	(3)
Border apprehensions	0.110***	0.222***	0.073***
	(0.034)	(0.052)	(0.021)
Observations	14,850	14,850	14,850
Adj. R-squared	0.078	0.292	0.529
District FEs	No	Yes	Yes
Year FEs	No	No	Yes
Border app. (s.d.)	36.23	36.23	36.23
Google Trends (av.)	24.02	24.02	24.02

A one standard deviation increase in our measure of border apprehensions results in a $0.073 \times 36.23 = 2.64$ increase in search volumes on Google, around 12 percent of its average value (24.02).

Media reporting and public attention on immigration-related topics (2012-2017)



(a) Data collected on Factiva

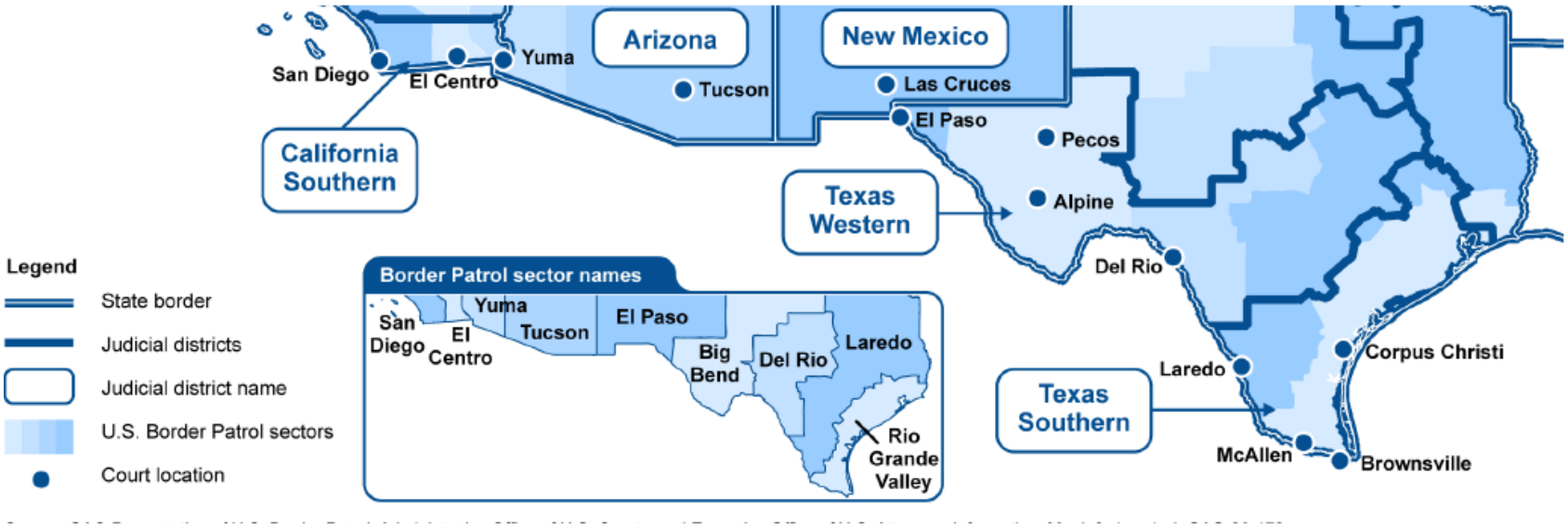


(b) Data collected on Twitter

Notes: Monthly share of Tweets (articles) in Twitter (Factiva) related to immigration over the total number of Tweets (articles) from 2012 to 2017 in Top-8 newspapers.

Sectors at the US-Mexico Border

Back



Benchmark estimates | Hispanic citizens vs. Non-Hispanic citizens

Back

	(1)	(2)	(3)
Black	5.021***		
	(0.361)		
Hispanic	2.647***		
	(0.359)		
Border app.		-0.005	-0.006
		(0.003)	(0.004)
Hispanic × Border app.		0.009***	0.011***
		(0.003)	(0.002)
Black × Border app.			0.006
			(0.006)
Age	0.284***	0.300***	0.300***
	(0.050)	(0.048)	(0.048)
Age^2	-0.004***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)
Female	-6.402***	-6.294***	-6.294***
	(0.321)	(0.306)	(0.306)
Nb. dependents=1	-0.729***	-0.766***	-0.767***
	(0.151)	(0.143)	(0.143)
Nb. dependents=2	-1.096***	-1.154***	-1.154***
	(0.199)	(0.194)	(0.194)
Nb. dependents=3	-1.729***	-1.834***	-1.834***
	(0.242)	(0.239)	(0.239)
Nb. dependents=4	-1.865***	-2.010***	-2.010***
	(0.313)	(0.308)	(0.308)
Nb. dependents=5+	-1.024***	-1.160***	-1.160***
	(0.373)	(0.360)	(0.360)
Trial	26.752***	26.706***	26.706***
	(1.362)	(1.368)	(1.368)
High School	-0.993***	-0.920***	-0.921***
	(0.173)	(0.166)	(0.166)
Some College	-2.437***	-2.363***	-2.363***
	(0.217)	(0.212)	(0.212)
College	-4.562***	-4.620***	-4.621***
	(0.403)	(0.380)	(0.380)
Criminal History × Offense level	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes
District × Year	Yes	Yes	Yes
Group × District	No	Yes	Yes
Group × Year	No	Yes	Yes
Observations	575,901	575,901	575,901
Adjusted R^2	0.771	0.772	0.772
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Border app. & sentence differential for Hispanic citizens (Road)

Back

	(1)	(2)	(3)
Black	5.021***		
	(0.361)		
Hispanic	2.647***		
	(0.359)		
Border app. (Road)		-0.006	-0.007
		(0.005)	(0.005)
Hispanic × Border app. (Road)		0.012***	0.014***
		(0.004)	(0.003)
Black × Border app. (Road)			0.008
			(0.008)
Individual controls	Yes	Yes	Yes
Criminal History × Offense level	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes
District × Year	Yes	Yes	Yes
Group × District	No	Yes	Yes
Group × Year	No	Yes	Yes
Observations	575,901	575,901	575,901
Adjusted R^2	0.771	0.772	0.772
Std. dev. Border app.	46.808	46.808	46.808
Mean Sentence (White)	50.990	50.990	50.990
Mean Sentence (Black)	74.991	74.991	74.991
Mean Sentence (Hispanic)	57.479	57.479	57.479

Border app. & sentence differential for Hispanic citizens (Normalized distance)

Back

	(1)	(2)	(3)
Black	5.021***		
	(0.361)		
Hispanic	2.647***		
	(0.359)		
Border app. (Norm.)		-0.016**	-0.017**
		(0.007)	(0.007)
Hispanic × Border app. (Norm.)		0.017***	0.019***
		(0.006)	(0.006)
Black × Border app. (Norm.)			0.006
			(0.011)
Individual controls	Yes	Yes	Yes
Criminal History × Offense level	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes
District × Year	Yes	Yes	Yes
Group × District	No	Yes	Yes
Group × Year	No	Yes	Yes
Observations	575,901	575,901	575,901
Adjusted R^2	0.771	0.772	0.772
Std. dev. Border app.	46.808	46.808	46.808
Mean Sentence (White)	50.990	50.990	50.990
Mean Sentence (Black)	74.991	74.991	74.991
Mean Sentence (Hispanic)	57.479	57.479	57.479

Border app. & sentence differential for Hispanic citizens (2000-2017)

Back

	(1)	(2)	(3)
Black	4.366***		
	(0.276)		
Hispanic	2.373***		
	(0.349)		
Border app.		-0.001	-0.002
		(0.002)	(0.002)
Hispanic × Border app.		0.004**	0.005***
		(0.002)	(0.002)
Black × Border app.			0.005
			(0.005)
Individual controls	Yes	Yes	Yes
Criminal History × Offense level	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes
District × Year	Yes	Yes	Yes
Group × District	No	Yes	Yes
Group × Year	No	Yes	Yes
Observations	880,676	634,408	634,408
Adjusted R^2	0.762	0.773	0.773
Std. dev. Border app.	60.540	60.540	60.540
Mean Sentence (White)	45.127	49.632	49.632
Mean Sentence (Black)	73.368	74.737	74.737
Mean Sentence (Hispanic)	56.041	56.741	56.741

Border app. & sentence differential for Hispanic citizens (Clustering)

Back

	(1) District	(2) Sates	(3) District × Month	(4) District × Group	(5) Group × Month
Border app.	-0.006	-0.006*	-0.006	-0.006*	-0.006
	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)
Hispanic × Border app.	0.011***	0.011***	0.011***	0.011***	0.011***
	(0.002)	(0.002)	(0.003)	(0.002)	(0.003)
Black × Border app.	0.006	0.006	0.006	0.006	0.006
	(0.006)	(0.006)	(0.005)	(0.005)	(0.005)
Observations	575,901	575,901	575,901	575,901	575,901
Adjusted R^2	0.772	0.772	0.772	0.772	0.772
Std. dev. Border app.	46.808	46.808	46.808	46.808	46.808
Mean Sentence (White)	50.990	50.990	50.990	50.990	50.990
Mean Sentence (Black)	74.991	74.991	74.991	74.991	74.991
Mean Sentence (Hispanic)	57.479	57.479	57.479	57.479	57.479

Border app. & sentence differential for Hispanic citizens (Alt. Dep.)

Back

	(1) Sentence length	(2) Z-score	(3) Probation	(4) Above range	(5) Below range
Border app.	-0.00567	-0.00016	0.00002	-0.00001	0.00005
	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)
Hispanic × Border app.	0.01064***	0.00029***	-0.00002	0.00001	-0.00001
	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)
Black × Border app.	0.00583	0.00047**	0.00004	0.00009***	-0.00008
	(0.006)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	575,901	575,901	575,901	575,900	575,900
Adjusted R^2	0.772	0.134	0.461	0.042	0.248
Std. dev. Border app.	46.808	46.808	46.808	46.809	46.809
Mean Sentence (White)	50.990	50.990	50.990	50.990	50.990
Mean Sentence (Black)	74.991	74.991	74.991	74.991	74.991
Mean Sentence (Hispanic)	57.479	57.479	57.479	57.479	57.479
Mean Dep. var.	61.308	-0.013	0.154	0.034	0.456

Descriptive statistics by racial and ethnic group (Citizens)

Back

Panel A - US citizens

	All		Whites		Blacks		Hispanics	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Sentence length	61.308	69.505	50.990	63.927	74.991	76.257	57.479	62.215
Criminal history cat.	2.634	1.831	2.259	1.703	3.240	1.888	2.259	1.653
Final offense level	20.858	8.919	19.917	9.033	21.507	8.876	21.813	8.486
Above range	0.034	0.180	0.030	0.170	0.044	0.205	0.020	0.141
Below range	0.456	0.498	0.492	0.500	0.399	0.490	0.488	0.500
Age	36.507	11.704	40.027	12.567	33.916	9.965	33.286	10.498
Female	0.168	0.374	0.187	0.390	0.140	0.347	0.183	0.386
Less then high school	0.309	0.462	0.206	0.404	0.365	0.482	0.446	0.497
High school	0.392	0.488	0.409	0.492	0.389	0.488	0.356	0.479
Some college	0.219	0.413	0.256	0.437	0.202	0.401	0.161	0.367
College	0.076	0.265	0.124	0.330	0.039	0.194	0.033	0.179
Nb. dependents	1.371	1.496	1.057	1.317	1.627	1.592	1.607	1.556
Trial	0.050	0.218	0.045	0.207	0.063	0.244	0.033	0.179
Border app.	40.130	46.810	39.391	47.829	30.679	29.899	62.580	63.831
Observations	575,902		254,553		220,246		101,103	

Panel B - Non-citizens

	All		Whites		Blacks		Hispanics	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Sentence length	52.760	57.674	39.148	51.772	51.816	62.798	54.526	57.632
Criminal history cat.	1.443	1.008	1.336	0.902	1.578	1.187	1.443	1.000
Final offense level	21.586	8.604	19.693	8.707	20.796	8.629	21.894	8.554
Above range	0.023	0.150	0.033	0.178	0.040	0.195	0.020	0.141
Below range	0.437	0.496	0.533	0.499	0.413	0.492	0.428	0.495
Age	34.240	10.164	37.534	11.438	36.055	9.513	33.662	9.957
Female	0.095	0.293	0.107	0.310	0.133	0.340	0.090	0.286
Less than high school	0.634	0.482	0.345	0.476	0.324	0.468	0.699	0.459
High school	0.189	0.391	0.254	0.435	0.306	0.461	0.170	0.375
Some college	0.112	0.315	0.221	0.415	0.253	0.435	0.085	0.279
College	0.052	0.222	0.168	0.374	0.109	0.312	0.032	0.177
Nb. dependents	1.800	1.607	1.282	1.498	1.826	1.666	1.862	1.602
Trial	0.038	0.192	0.057	0.232	0.099	0.299	0.030	0.171
Border app.	63.984	74.106	60.972	79.812	28.468	32.515	67.719	75.294
Observations	131,611		13,305		10,237		108,069	

Main primary offense types

Back

	All		Whites				Blacks				Hispanics			
	All		Us citizens		Non-citizens		Us citizens		Non-citizens		Us citizens		Non-citizens	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Drugs - Trafficking	329,350.0	34.0	81,797	31.5	5,635	27.6	91,054	41.0	5,141	36.1	63,464	54.6	82,259	24.4
Immigration	262,034	27.0	5,347	2.1	7,082	34.7	1,568	0.7	3,999	28.1	15,118	13.0	228,920	67.9
Firearms	109,277	11.3	34,851	13.4	509	2.5	55,793	25.2	760	5.3	11,150	9.6	6,214	1.8
Fraud	95,632	9.9	44,509	17.1	3,792	18.6	29,481	13.3	2,665	18.7	7,788	6.7	7,397	2.2
Pornography/Prostitution	23,587	2.4	20,461	7.9	240	1.2	936	0.4	21	0.1	1,449	1.2	480	0.1
Larceny	18,841	1.9	9,747	3.8	279	1.4	6,230	2.8	194	1.4	1,705	1.5	686	0.2
Robbery	15,452	1.6	7,332	2.8	76	0.4	6,728	3.0	74	0.5	1,052	0.9	190	0.1
Administration of Justice	14,610	1.5	6,744	2.6	341	1.7	3,490	1.6	160	1.1	1,979	1.7	1,896	0.6
Traffic Violations and Other Offenses	14,388	1.5	8,501	3.3	407	2.0	3,147	1.4	146	1.0	1,305	1.1	882	0.3
Forgery/Counterfeiting	13,409	1.4	5,824	2.2	194	1.0	5,365	2.4	246	1.7	1,066	0.9	714	0.2
Money Laundering	11,034	1.1	4,099	1.6	598	2.9	1,642	0.7	249	1.7	1,989	1.7	2,457	0.7
Racketeering /Extortion	10,852	1.1	3,858	1.5	297	1.5	3,754	1.7	109	0.8	1,800	1.5	1,034	0.3
Tax Offenses	8,237	0.8	5,716	2.2	179	0.9	1,466	0.7	82	0.6	580	0.5	214	0.1
Embezzlement	6,175	0.6	4,002	1.5	33	0.2	1,592	0.7	37	0.3	445	0.4	66	0.0
Drugs - Communication Facilities	5,484	0.6	1,570	0.6	77	0.4	1,939	0.9	35	0.2	987	0.8	876	0.3
Prison Offenses	5,098	0.5	1,465	0.6	13	0.1	2,028	0.9	36	0.3	1,167	1.0	389	0.1
Assault	5,066	0.5	2,261	0.9	78	0.4	1,303	0.6	53	0.4	715	0.6	656	0.2
Drugs: - Simple Possession	4,941	0.5	2,340	0.9	33	0.2	1,348	0.6	29	0.2	633	0.5	558	0.2
Sexual Abuse	4,095	0.4	2,444	0.9	68	0.3	977	0.4	23	0.2	384	0.3	199	0.1
Bribery	2,743	0.3	1,276	0.5	96	0.5	707	0.3	37	0.3	502	0.4	125	0.0
Environmental Offenses	1,601	0.2	1,351	0.5	61	0.3	59	0.0	11	0.1	75	0.1	44	0.0
Gambling/Lottery	1,136	0.1	956	0.4	32	0.2	77	0.0	0	0.0	59	0.1	12	0.0
Auto Theft	1,037	0.1	488	0.2	48	0.2	310	0.1	24	0.2	103	0.1	64	0.0
Food and Drug Offenses	907	0.1	684	0.3	34	0.2	39	0.0	8	0.1	90	0.1	52	0.0
Civil Rights Offenses	887	0.1	609	0.2	7	0.0	160	0.1	4	0.0	82	0.1	25	0.0
National Defense Offenses	841	0.1	246	0.1	103	0.5	49	0.0	29	0.2	185	0.2	229	0.1
Arson	803	0.1	583	0.2	19	0.1	133	0.1	2	0.0	51	0.0	15	0.0
Murder	724	0.1	288	0.1	27	0.1	196	0.1	9	0.1	118	0.1	86	0.0
Kidnapping/Hostage Taking	653	0.1	150	0.1	12	0.1	115	0.1	50	0.4	95	0.1	231	0.1
Burglary/Breaking and Entering	311	0.0	187	0.1	2	0.0	88	0.0	1	0.0	30	0.0	3	0.0
Antitrust Violations	185	0.0	141	0.1	14	0.1	13	0.0	0	0.0	14	0.0	3	0.0
Manslaughter	157	0.0	73	0.0	1	0.0	27	0.0	2	0.0	41	0.0	13	0.0
Total	969,547		259,900		20,387		221,814		14,236		116,221		336,989	

Presentence investigation report

Back

PROB 1
(Rev. 4/01)

UNITED STATES DISTRICT COURT
Federal Probation System

WORKSHEET FOR PRESENTENCE REPORT
(See Publication 107 for Instruction)

1. FACESHEET DATA	
Defendant's Court Name:	
Defendant's True Name:	
Docket No.:	District:
Judge/Magistrate:	Sentencing Date:
USPO:	Arrest Date:
Assistant U.S. Attorney (Name, address, telephone)	Defense Counsel (Name, address, telephone)

DEFENDANT'S IDENTIFICATION

Defendant's Names: (List every name the defendant has used, e.g., name given at birth, name given at adoption, nickname, alias, names used as a result of marriage, etc.)

Date of Birth:	Age:	Place of Birth:

Race: ☐ White ☐ Black ☐ American Indian/Alaskan Native ☐ Asian or Pacific Islander ☐ Unknown

Hispanic Origin: ☐ Hispanic ☐ Not Hispanic ☐ Unknown

Sex:	Country of Citizenship:	Immigration Status:
No. of Dependents:	Education:	SSN:
FBI No.:	U.S. Marshal's No.:	Other ID No.:

Defendant's Legal Address: _____
(Number and Street) (Apartment)

_____
(City) (State) (Zip)

Defendant's Current Address: _____
(Number and Street) (Apartment)

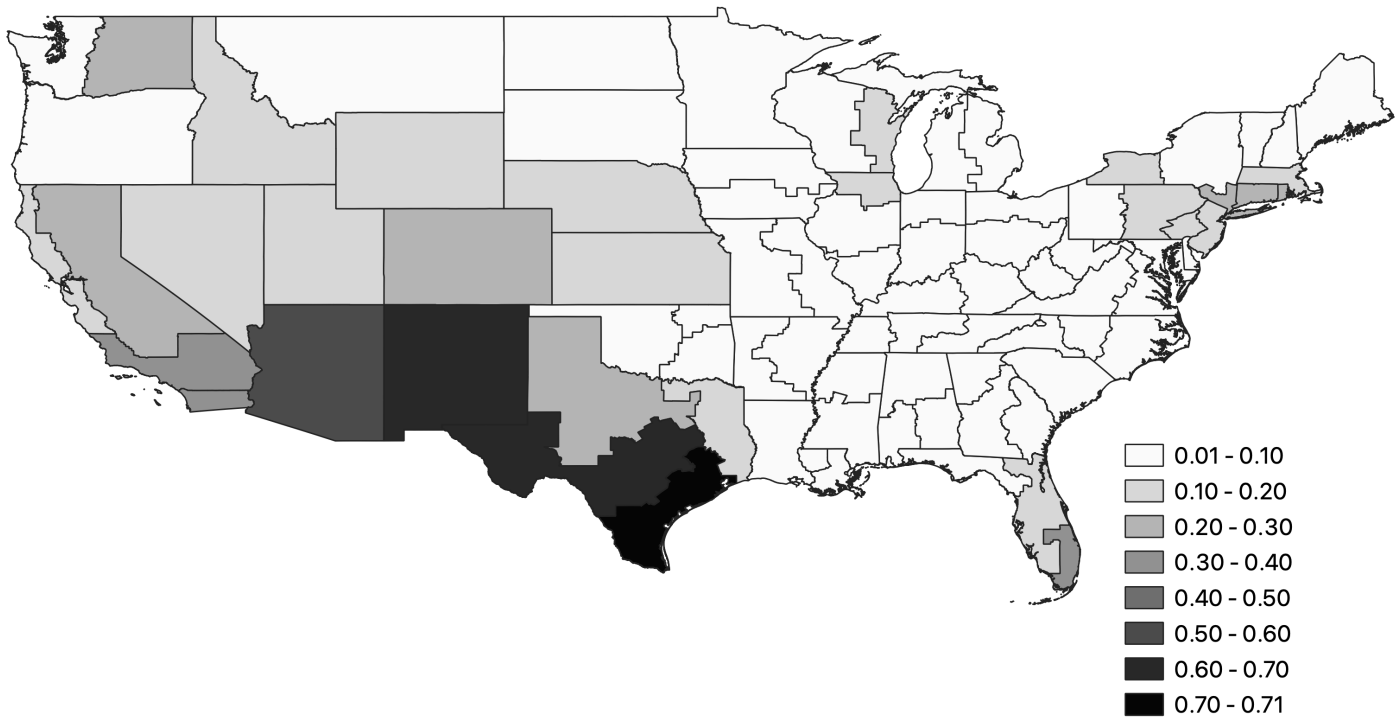
_____
(City) (State) (Zip)

Referral Date: _____

Interview Date: _____

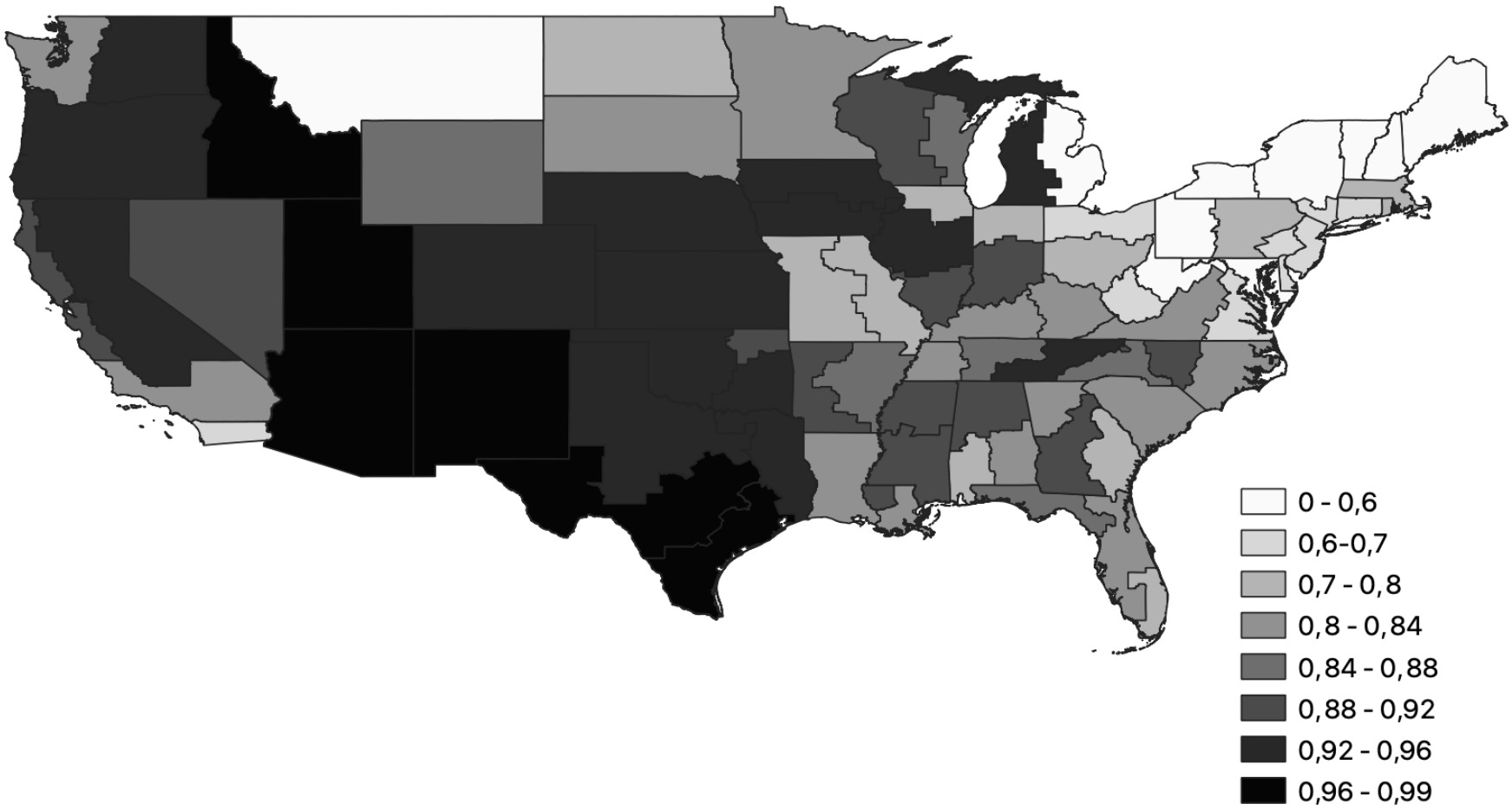
Share of Hispanic defendants across districts (2001-2017 average)

US Citizens (Mean=12%)



Share of Hispanic defendants across districts (2001-2017 average)

Non-citizens (Mean=80%)



Benchmark specification | Individual controls

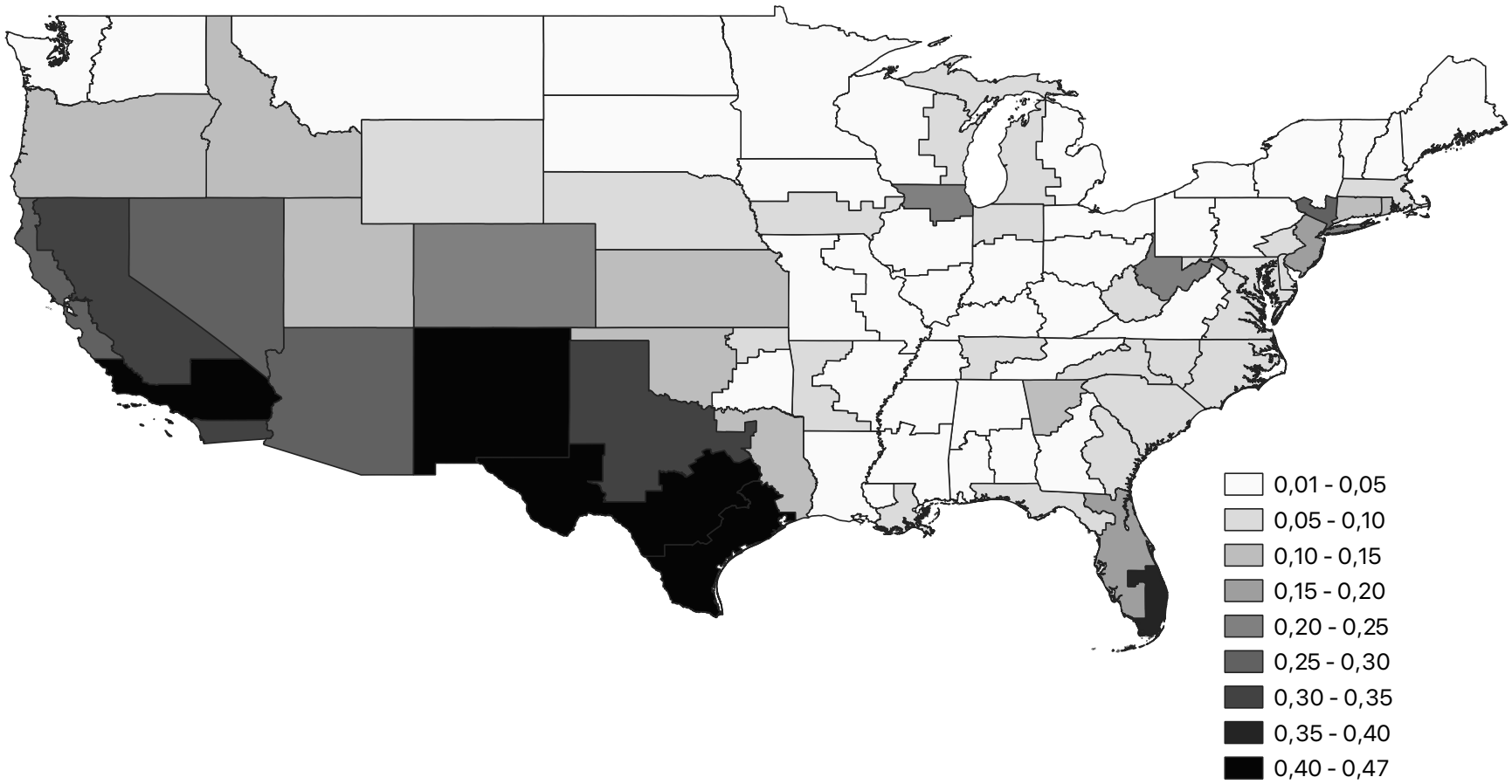
Back

- Age + Age^2 (inverted U-shape).
- Dummy for women (-).
- Number of dependents (6 categories, top-coded at 5) (-).
- Educational attainment dummies. High-school + Some college + College graduates (less than high school = omitted category) (-).
- Log of income (cell-specific median from the ACS where cells are defined on the basis of the year, state of residence, age groups, sex, race, ethnicity and education) (-).

corr(Border app$_{cmy}$, ϵ_{icmy}) $=$ 0 is clearly untestable. We can corroborate its plausibility by running a regression with the variable of interest on the left hand side, and using the same specification as in Eq. (1) for the other controls and for the structure of fixed effects. F-test on the null hypothesis that all coefficients are equal to zero : pvalue = 0.498 (after excluding dummies for primary offense type).

Share of Hispanics in the 2010 resident population

Back



Main contributions

Back

We contribute to 4 main strands of the literature:

1. Racial disparities in sentencing in the US

- Wide literature on racial disparities in sentencing in the US which extensively reports sentencing gaps between Black and White defendants.

  (See Abrams et al., 2012; Anwar et al., 2012; Alesina and La Ferrara, 2014; Rehavi and Starr, 2014; Yang, 2015; Arnold et al., 2018; Berdejó, 2018; Cohen and Yang, 2019, among others).

- We focus in this paper on discrimination toward Hispanics

  (Steffensmeier and Demuth, 2000; Feldmeyer and Ulmer, 2011; Ulmer and Parker, 2019).

2. Time-varying bias in sentencing

- Electoral cycles (Berdejó and Chen, 2017).
- Judges' political cycles (Berdejó and Yuchtman, 2013).
- Changes in public opinion (Nelson, 2014).
- Religious celebrations (Mehmood, et al., 2023).

Generally speaking, wide literature on noise induced by irrelevant information in judicial decisions (Danziger et al., 2011; Eren and Mocan, 2018; Heyes and Saberian, 2019; Chen and Philippe, 2021; Chen and Loecher, 2021).

2. Time-varying bias in sentencing (cont'd)

The closest papers to our analysis are:

- Shayo and Zussman (2011, *AEJ/AE*): Sentencing gaps between Jewish and Arab citizens increase with the nb. of fatalities in the area surrounding the court in the year before the judicial decision (in-group bias).
- McConnell and Rasul (2021, *JOLE*): Hispanics in the US were 13.5 percent less likely to benefit from a downward departure than Whites after 9/11. No effect for Black (contagious animosity).
- McConnell et al. (2023): 9/11 induced a decline in the likelihood of being granted parole and a subsequent 23% relative increase in prison time for Muslim inmates in Georgia.

Main contributions

Back

3. Statistical discrimination (Phelps, 1972; Arrow, 1972)

- We show that the Hispanic penalty varies with the amount of information about a defendant (Altonji and Pierret, 2001).
- This interpretation of the results may be confirmed by additional suggestive evidence of no association between judges' ethnicity and our effect McConnell and Rasul (2021).

4. Salience of identity and priming effects

- In the case of the justice system (Graham and Lowery, 2004; Rachlinski et al., 2008).
- Identification strategy $\sim$ Colussi et al. (2021): The size of the Muslim immigrant community impact the votes for extreme parties in German local elections and is stronger when elections are held during or shortly after the Ramadan (increasing the salience of Muslim community).
- Alesina et al. (2022): Randomization of the order in which respondents see questions on redistribution and immigration. Making respondents think about immigration (increase in the salience) makes them significantly more averse to redistribution.

Labor market example

Back

In the labor market, an increase in border apprehensions may be associated with an increase in the labor supply of immigrants (Ottaviano and Peri, 2012). Hispanic workers might act more aggressively if they face a harsher bashing from their colleagues because of their ethnicity, which might increase the probability of losing their job.

Primary Offense Type

Back

	All	Drugs	No Drugs
Panel A - All cases			
	(1)	(2)	(3)
Border app.	-0.006	-0.004	-0.007
	(0.004)	(0.006)	(0.004)
Hispanic × Border app.	0.011***	0.008	0.007
	(0.002)	(0.006)	(0.005)
Black × Border app.	0.006	-0.010	0.025***
	(0.006)	(0.009)	(0.008)
Observations	575,901	245,127	330,769
Adjusted R^2	0.772	0.765	0.776
Std. dev. Border app.	46.808	54.676	39.498
Mean Sentence (White)	50.990	64.989	43.885
Mean Sentence (Black)	74.991	98.168	57.626
Mean Sentence (Hispanic)	57.479	64.916	44.044
Panel B - Cases with criminal history cat. ≤ 2			
	(1)	(2)	(3)
Border app.	-0.009***	-0.005	-0.009**
	(0.003)	(0.006)	(0.004)
Hispanic × Border app.	0.015***	0.012***	0.010
	(0.004)	(0.004)	(0.006)
Black × Border app.	0.011	-0.006	0.025**
	(0.007)	(0.007)	(0.011)
Observations	320,273	129,525	190,746
Adjusted R^2	0.742	0.735	0.745
Std. dev. Border app.	49.266	59.129	40.227
Mean Sentence (White)	37.627	44.826	34.449
Mean Sentence (Black)	42.611	62.885	29.220
Mean Sentence (Hispanic)	44.065	50.359	31.597

Heterogeneity Analysis | Low-information cases

Back

The most direct approach to distinguish between taste and statistical discrimination is to measure how the sentencing gap varies with the amount of information about the defendant (Altonji and Pierret, 2001).

Berdejó (2018): Discrimination is more likely to occur in "low-information cases", where the judge has fewer elements to determine "the defendant's latent criminality and likelihood to recidivate"

Judges may be more inclined to rely on ethnicity, as conveying information on unobserved characteristics, in low information cases and when the salience of the Hispanic identity increases.

Test: Estimates on sub-samples defined on the basis of the median value (2 on a 1-to-6 scale) of the criminal history of the defendant.

Heterogeneity Analysis | Low information cases

Back

	(1)	(2)	(3)
Criminal History cat.	All	>2	≤ 2
Border app.	-0.006	-0.004	-0.009***
	(0.004)	(0.006)	(0.003)
Hispanic $\times$ Border app.	0.011***	0.006	0.015***
	(0.002)	(0.006)	(0.004)
Black $\times$ Border app.	0.006	0.001	0.011
	(0.006)	(0.010)	(0.007)
Observations	575,901	255,628	320,273
Adjusted R^2	0.772	0.748	0.742
Std. dev. Border app.	46.808	43.440	49.266
Mean Sentence (White)	50.990	76.568	37.627
Mean Sentence (Black)	74.991	96.430	42.611
Mean Sentence (Hispanic)	57.479	81.986	44.065

Heterogeneity Analysis | Defendant's characteristics

Back

	All	Male	Female	Less HS	High School	College	Age $\leq$ 34	Age $>$ 34
				Panel A - All cases				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Border app.	-0.006	-0.006*	-0.004	-0.007	-0.003	-0.022***	-0.002	-0.010*
	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.007)	(0.004)	(0.006)
Hispanic $\times$ Border app.	0.011***	0.013***	0.002	0.015**	0.004	0.008	0.009**	0.011**
	(0.002)	(0.003)	(0.004)	(0.006)	(0.003)	(0.008)	(0.005)	(0.004)
Black $\times$ Border app.	0.006	0.005	0.017	0.005	0.003	0.009	0.011	-0.003
	(0.006)	(0.006)	(0.010)	(0.012)	(0.006)	(0.017)	(0.013)	(0.006)
Observations	575,901	479,020	96,875	180,568	376,460	43,617	292,411	283,488
Adjusted R^2	0.772	0.765	0.725	0.765	0.777	0.745	0.759	0.787
Std. dev. Border app.	46.808	46.427	48.570	52.392	47.466	40.997	49.531	43.650
Mean Sentence (White)	50.990	56.350	27.680	54.696	52.039	35.680	51.626	50.594
Mean Sentence (Black)	74.991	83.397	23.303	84.712	70.591	34.891	78.215	70.143
Mean Sentence (Hispanic)	57.479	63.703	29.625	60.342	51.303	40.735	55.369	60.887
				Panel B - Cases with criminal history cat. $\leq$ 2				
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Border app.	-0.009***	-0.012***	0.004	-0.009**	-0.007	-0.011*	-0.012**	-0.003
	(0.003)	(0.003)	(0.004)	(0.004)	(0.006)	(0.007)	(0.006)	(0.004)
Hispanic $\times$ Border app.	0.015***	0.019***	0.002	0.018***	0.011***	0.004	0.017***	0.010*
	(0.004)	(0.006)	(0.004)	(0.004)	(0.003)	(0.009)	(0.004)	(0.006)
Black $\times$ Border app.	0.011	0.008	0.018**	0.012	0.010	0.002	0.014	0.006
	(0.007)	(0.008)	(0.008)	(0.012)	(0.007)	(0.018)	(0.012)	(0.007)
Observations	320,273	243,086	77,181	81,850	218,075	39,709	145,528	174,745
Adjusted R^2	0.742	0.740	0.704	0.729	0.754	0.733	0.724	0.761
Std. dev. Border app.	49.266	49.562	48.314	58.627	49.827	40.582	54.541	43.931
Mean Sentence (White)	37.627	42.248	21.545	39.611	37.850	33.377	37.855	37.509
Mean Sentence (Black)	42.611	52.236	17.046	52.420	39.752	28.545	47.612	36.385
Mean Sentence (Hispanic)	44.065	49.808	26.157	47.337	40.374	38.752	42.680	46.258

Heterogeneity Analysis | Judges' political appointment

Back

Judges are appointed "for life" and nominated by the President of the United States (667, in 2017).

The USSC does not allow us to identify judges for any cases in the data (Cohen and Yang, 2019).

Still we can use the information on judges' characteristics from the Biographical Directory of Federal Judges, provided by the Federal Judicial center to compute the monthly district share of Republican-appointed judges (56.57%).

Implication: The greater the share of Republican judges in the district, the greater the likelihood for a randomly drawn defendant to be sentenced by a Republican judge.

Heterogeneity Analysis | Judges' political appointment

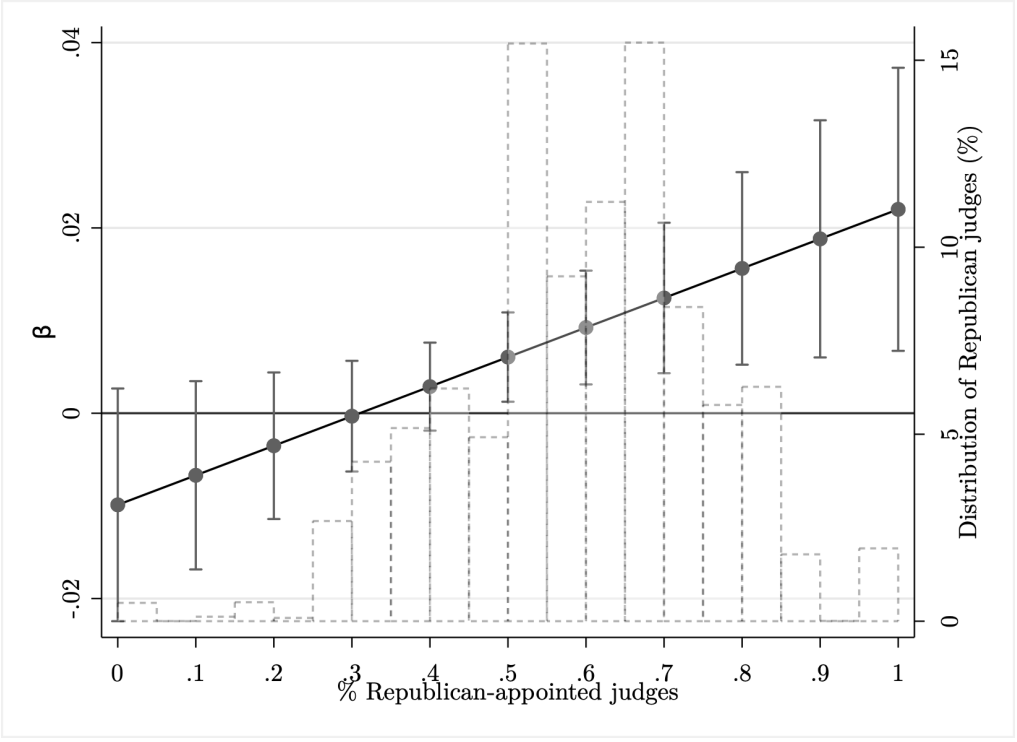
Back

Sample from	(1) Oct. 2001 All	(2) Oct. 2001 ≤ 2	(3) Jan. 2000 All	(4) Jan. 2000 ≤ 2
Border app.	-0.024	-0.015	-0.006	0.000
	(0.016)	(0.013)	(0.010)	(0.007)
Hispanic $\times$ Border app.	-0.001	-0.009	-0.006	-0.012
	(0.013)	(0.015)	(0.008)	(0.008)
Share of Rep. judges	-0.945	-0.314	0.190	0.240
	(3.497)	(3.536)	(3.263)	(3.195)
Border app. $\times$ Share of Rep. judges	0.031	0.011	0.008	-0.006
	(0.027)	(0.021)	(0.018)	(0.013)
Hispanic $\times$ Share of Rep. judges	0.789	-0.524	0.219	-1.216
	(3.001)	(3.754)	(2.971)	(3.163)
Hispanic $\times$ Border app. $\times$ Share of Rep. judges	0.019	0.040*	0.022	0.038**
	(0.021)	(0.023)	(0.015)	(0.015)
Black $\times$ Border app.	0.006	0.012	0.005	0.007
	(0.006)	(0.007)	(0.005)	(0.005)
Observations	575,901	320,273	634,408	355,934
Adjusted R^2	0.772	0.742	0.773	0.742
Std. dev. Border app.	46.808	49.266	60.540	63.824
Mean Sentence (White)	50.990	37.627	49.632	36.364
Mean Sentence (Black)	74.991	42.611	74.737	42.770
Mean Sentence (Hispanic)	57.479	44.065	56.741	43.526

Heterogeneity Analysis | Judges' political appointment

Back

Hispanic penalty conditional on border app. and judges' political appointment



Only Republican-appointed judges seem to react to variation in the salience of the Hispanic ethnicity (no significant effect for Democrats).

Heterogeneity Analysis | Border districts Back

Five districts (California Southern, Arizona, New Mexico, Texas Western and Texas Southern) are located along the border with Mexico.

Effect could be stronger as:

- The prosecution of illegal entry and re-entry can give to Federal judges a first-hand access to information about the scale of apprehensions.
- Apprehensions increase the cases related to human smuggling (mostly for Hispanic defendants), and these cases could deteriorate judges' attitudes towards all Hispanic defendants.

Notice that apprehensions do not influence the workload of Federal Judges (magistrate judges handle these cases), and apprehensions result in detentions by the ICE that do not involve Federal prisons, so that they are uncorrelated with the probability that a defendant sentenced in a border district is in our out of custody.

Heterogeneity Analysis | Border districts

Back

	(1) All	(2) Border States	(3) Other States	(4) Border Districts	(5) Other Districts	(6) Border Districts=0	(7) Other States=0
Border app.	-0.006	-0.005	-0.000	-0.004	-0.007	-0.004	-0.005*
	(0.004)	(0.006)	(0.016)	(0.007)	(0.007)	(0.006)	(0.003)
Hispanic × Border app.	0.011***	0.010***	0.020	0.008***	0.006	-0.004	0.011***
	(0.002)	(0.002)	(0.015)	(0.002)	(0.007)	(0.006)	(0.002)
Black × Border app.	0.006	0.012	-0.003	0.007	0.009	0.008	0.001
	(0.006)	(0.008)	(0.015)	(0.008)	(0.009)	(0.008)	(0.006)
Observations	575,901	124,405	451,493	79,702	496,197	575,901	575,901
Adjusted R^2	0.772	0.783	0.770	0.775	0.771	0.772	0.772
Std. dev. Border app.	46.808	74.526	17.485	81.317	25.350	25.621	47.802
Mean Sentence (White)	50.990	48.328	51.534	43.540	51.741	50.990	50.990
Mean Sentence (Black)	74.991	64.064	76.289	62.032	75.588	74.991	74.991
Mean Sentence (Hispanic)	57.479	53.353	63.006	48.647	65.064	57.479	57.479

Average differences in sentences across groups

Back

	(1) All	(2) All	(3) Citizens
Black	5.006***	5.168***	4.965***
	(0.356)	(0.383)	(0.362)
Hispanic	2.609***	2.635***	2.572***
	(0.373)	(0.464)	(0.350)
Non citizen	2.287***	3.159***	
	(0.442)	(0.456)	
Black × Non citizen		-2.340***	
		(0.829)	
Hispanic × Non citizen		-0.820	
		(0.666)	
Individual controls	Yes	Yes	Yes
Criminal History × Offense level	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes
District × Year	Yes	Yes	Yes
Observations	969,546	969,546	597,934
Adjusted R^2	0.794	0.794	0.775
Mean Sentence (White)	48.945	48.945	50.245
Mean Sentence (Black)	72.705	72.705	74.563
Mean Sentence (Hispanic)	36.350	36.350	51.949

Time-varying offense-specific severity | Back

Can our result reflect a time-varying penalty for some specific types of offenses? This could occur if:

1. Hispanics are sentenced in districts closer to the border (true),
2. Hispanic and non-Hispanic defendants are charged with different types of offenses (true),

and either:

3. the share of various offense types correlates with apprehensions,

or:

4. the severity with which judges sentence different types of offenses varies systematically with apprehensions.

If (say) border patrolling efforts are associated with directives to be tough on illegal activities across the border (such as drug trafficking), then would induce an upward bias in β_1.

Solution: Introduce a triple interaction month$\times$year$\times$offense type.

Time-varying offense-specific severity | Back

	(1)	(2)	(3)
Black	4.919***		
	(0.358)		
Hispanic	2.728***		
	(0.351)		
Border app.		-0.004	-0.004
		(0.004)	(0.004)
Hispanic × Border app.		0.011***	0.012***
		(0.002)	(0.002)
Black × Border app.			0.005
			(0.006)
Individual controls	Yes	Yes	Yes
Criminal History × Offense level	Yes	Yes	Yes
District × Year	Yes	Yes	Yes
Group × District	No	Yes	Yes
Group × Year	No	Yes	Yes
Offense Type × Year × Month	Yes	Yes	Yes
Observations	575,546	575,546	575,546
Adjusted R^2	0.773	0.773	0.773
Std. dev. Border app.	46.810	46.810	46.810
Mean Sentence (White)	50.984	50.984	50.984
Mean Sentence (Black)	74.987	74.987	74.987
Mean Sentence (Hispanic)	57.466	57.466	57.466

Hispanic identity at sentencing

Back

§5H1.10. Race, Sex, National Origin, Creed, Religion, and Socio-Economic Status (Policy Statement)

These factors are not relevant in the determination of a sentence.

Historical Note	Effective November 1, 1987.

- Information on race and ethnicity is included in the presentence investigation report (PSR) that the judge receives two weeks before the sentencing hearing. Example
- Federal judges also meet the defendant in person for the initial appearance and the sentencing hearing.

The possibility of a strategic misreporting (or manipulation) of ethnic identity is limited to nonexistent. Self id.

JUSTFAIR database | Ciocanel et al., 2020

Back

Ciocanel et al. (2020) combine data from multiple sources that allow identifying, for a large subset of the observations in our benchmark analysis (310,269 observations), the federal judge that sentenced each case.

We use this information to:

1. Test the robustness of our results to federal judge fixed-effect.
2. An heterogeneity analysis with Democratic- and Republican-appointed judges.

JUSTFAIR database | Ciocanel et al., 2020

Back

	(1)	(2)	(3)	(4)
Border app.	-0.010*	-0.009*	-0.009*	-0.009
	(0.006)	(0.005)	(0.005)	(0.006)
Hispanic × Border app	0.010**	0.008**	0.008**	0.010**
	(0.004)	(0.004)	(0.004)	(0.004)
Black × Border app.	0.012	0.013	0.013	0.013
	(0.012)	(0.012)	(0.012)	(0.012)
Individual controls	Yes	Yes	Yes	Yes
Fixed effects:				
Criminal History × Offense level	Yes	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes	Yes
District × Year	Yes	Yes	Yes	Yes
Group × District	Yes	Yes	Yes	Yes
Group × Year	Yes	Yes	Yes	Yes
Judge	No	Yes	No	No
Judge × District	No	No	Yes	No
Judge × Year	No	No	No	Yes
Observations	310,269	310,252	310,252	309,908
Adjusted R^2	0.775	0.778	0.778	0.779
Std. dev. Border app.	39.383	39.384	39.384	39.378
Mean Sentence (White)	51.603	51.605	51.605	51.608
Mean Sentence (Black)	72.471	72.470	72.470	72.470
Mean Sentence (Hispanic)	56.151	56.148	56.148	56.152

JUSTFAIR database | Ciocanel et al., 2020

Back

	(1) All	(2) Republicans	(3) Democrats	(4) All	(5) Republicans	(6) Democrats
Border app.	-0.010*	-0.010**	-0.007	-0.009*	-0.009*	-0.007
	(0.006)	(0.005)	(0.009)	(0.005)	(0.005)	(0.009)
Hispanic× Border app.	0.010**	0.009**	0.010	0.008**	0.007*	0.010
	(0.004)	(0.004)	(0.007)	(0.004)	(0.004)	(0.008)
Black × Border app.	0.012	0.003	0.025	0.013	0.004	0.025
	(0.012)	(0.012)	(0.019)	(0.012)	(0.012)	(0.019)
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects:						
Criminal History × Offense level	Yes	Yes	Yes	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes	Yes	Yes	Yes
District × Year	Yes	Yes	Yes	Yes	Yes	Yes
Group × District	Yes	Yes	Yes	Yes	Yes	Yes
Group × Year	Yes	Yes	Yes	Yes	Yes	Yes
Judge	No	No	No	Yes	Yes	Yes
Observations	310,269	176,465	133,725	310,252	176,455	133,719
Adjusted R^2	0.775	0.785	0.765	0.778	0.787	0.767
Std. dev. Border app.	39.383	41.562	36.165	39.384	41.563	36.165
Mean Sentence (White)	51.603	53.023	49.701	51.605	53.023	49.703
Mean Sentence (Black)	72.471	74.710	69.644	72.470	74.711	69.643
Mean Sentence (Hispanic)	56.151	56.342	55.858	56.148	56.342	55.858

Under-weighting | Back

"Salience affects behavior because salient stimuli are over-weighted while non-salient stimuli are under-weighted." (Bordalo et al., 2022).

If apprehensions increase the salience of the Hispanic ethnic identity, then could also reduce the influence of other (non-salient) variables on sentences.

We can also interact apprehensions with other variables in our benchmark sample (citizens only).

Under-weighting | Back

	(1)	(2)	(3)	(4)
Border app.	-0.005	-0.008*	-0.006	-0.009**
	(0.003)	(0.004)	(0.004)	(0.004)
Hispanic × Border app.	0.009***	0.009***	0.010***	0.011***
	(0.003)	(0.003)	(0.002)	(0.002)
Black × Border app.		0.006		0.006
		(0.006)		(0.006)
Woman	-6.294***	-7.024***	-6.294***	-7.024***
	(0.306)	(0.327)	(0.004)	(0.327)
Woman × Border app.		0.017***		0.017***
		(0.004)		(0.004)
Observations	575,901	575,901	575,901	575,901
Adjusted R^2	0.777	0.777	0.777	0.777
Std. dev. Border app.	46.808	46.808	46.808	46.808
Mean Sentence (White)	50.340	50.340	50.340	50.340
Individual controls	Yes	Yes	Yes	Yes
Year × Month	Yes	Yes	Yes	Yes
Offense Type	Yes	Yes	Yes	Yes
District × Year	Yes	Yes	Yes	Yes
Criminal History × Offense level	Yes	Yes	Yes	Yes
Group × District	Yes	Yes	Yes	Yes
Group × Year	Yes	Yes	Yes	Yes

Under-weighting | Back

Federal judges are significantly more lenient towards women, who receive sentences that are (on average) 6.4 months shorter.

A one-standard-deviation increase in apprehensions reduces the differential between women and men by $0.017 \times 46.808 = 0.8$ months, i.e., 12.5 percent of the average differential.