



Department of Psychiatry

SCHOOL OF MEDICINE

UNIVERSITY OF COLORADO **ANSCHUTZ MEDICAL CAMPUS**



BRAIN HEALTH for all, for life.

Trauma exposure and mental health among recent Latinx immigrant adults: study goals and research progress

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Prepared for CUGH Annual
Conference: 04/16/2023

Latin America is the World's Most Violent Region

44 of the 50 most violent cities are in Latin America:

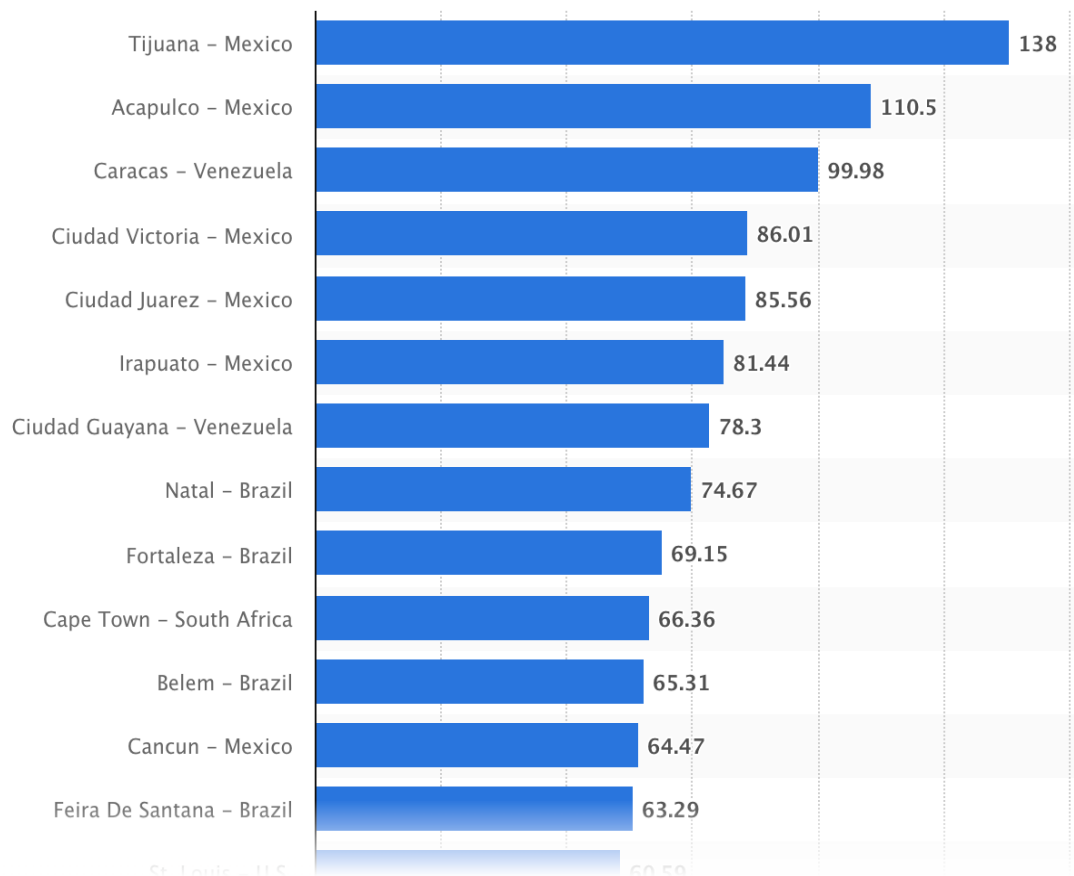
Accounts for 8% of world's population and 36% of total homicides

Despite NO war zones or civil conflicts in the region

Full list:

<https://www.statista.com/statistics/243797/ranking-of-the-most-dangerous-cities-in-the-world-by-murder-rate-per-capita/>

2022 murder rates per 100,000



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1K01MD015768-01A1 (PI: Vargas):

How is mental health of recent Latinx immigrants shaped by trauma exposure, individual characteristics and symptom severity?

SA1: Develop initial mental health phenotypes in a diverse sample of recent Latinx immigrant adults using latent class analysis methods and examine their demographic and trauma exposure correlates (trauma exposure, sex, age, gender, marital status, education, country of origin, and ethnicity).

SA2: Obtain an in-depth understanding of participant experiences of trauma exposure and mental health to illuminate findings in SA1 using qualitative methods.

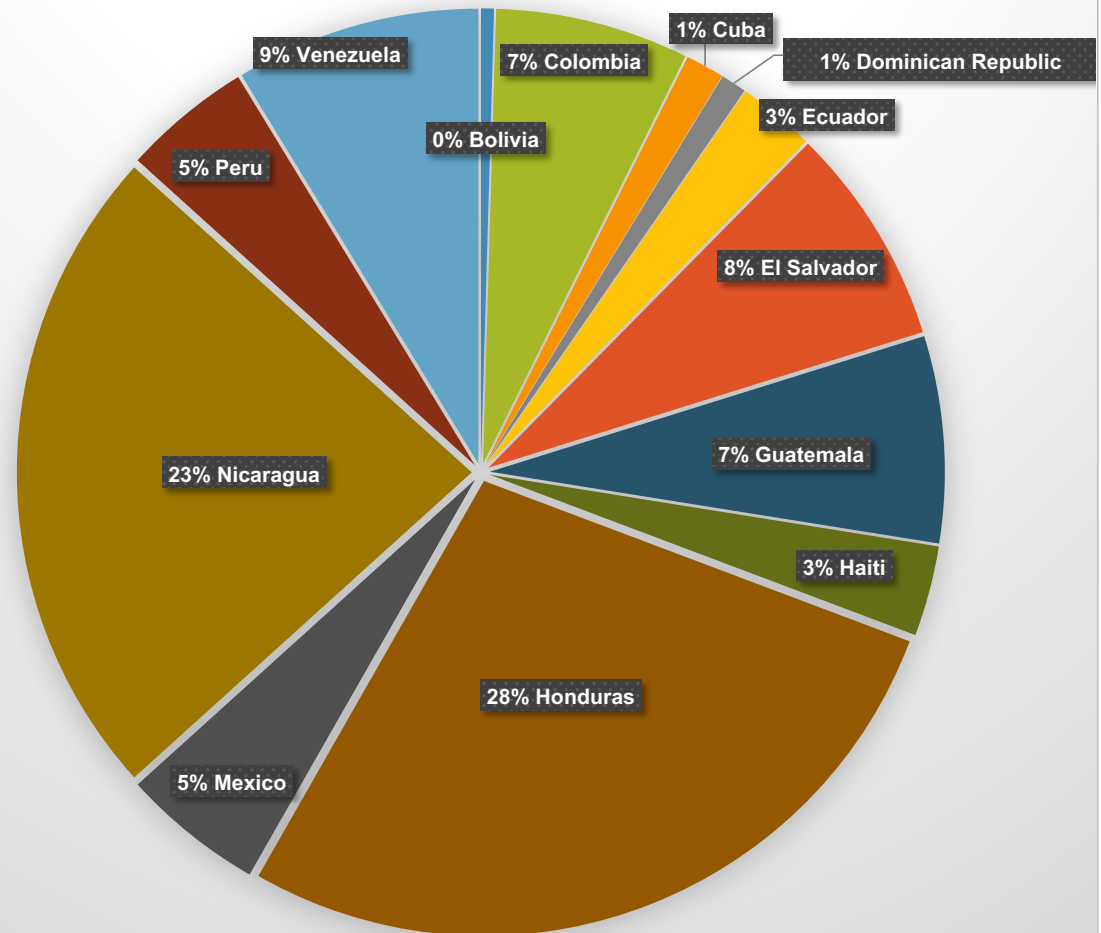
SA3: Expand upon mental health phenotypes through a mixed-methods approach that identifies any additional constructs from qualitative findings, expands the initial survey to test any additional constructs, and validates initial phenotypes in a sample of recent Latinx immigrant adults.

Sample Nationalities

- Total target n for the surveys = 660
- Additionally – I've collected 12 qualitative interviews so far (target n~40)

- Mostly women – and families – although some single adults.
- Mostly **asylum seeking immigrants** – some are here – on humanitarian parole. Several had disabilities or had children with disabilities.
- People from ALL walks of life – lawyers, teachers, social workers, cooks, military, law enforcement, construction, business owners, students, teachers, grandparents, LGBTQ – the list goes on...

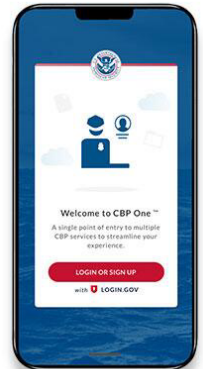
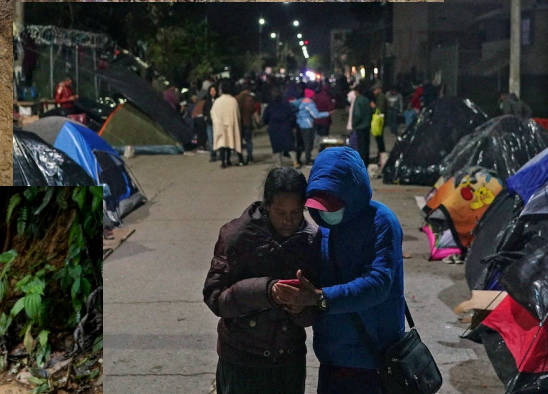
Participant Nationalities (N=218)



CCRGV Respite Center



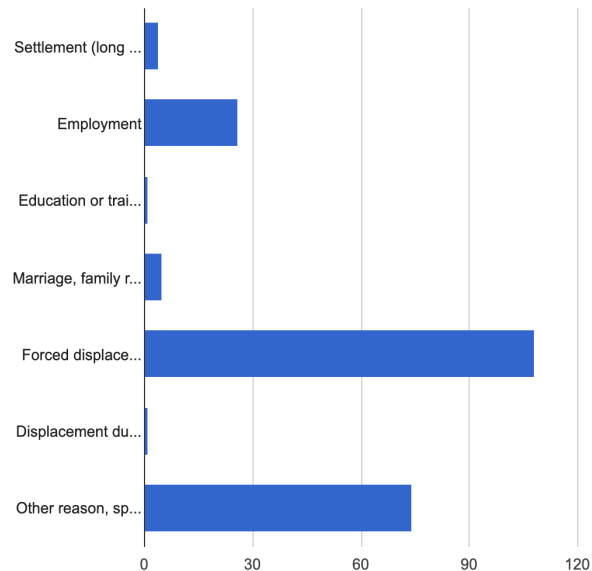
Dangers of migration





Demographics

Counts/frequency: Settlement (long term/permanent stay) (4, 1.8%), Employment (26, 11.9%), Education or training (1, 0.5%), Marriage, family reunification, or family formation (5, 2.3%), Forced displacement (refugees, asylum seekers, temporary protection, etc.) (108, 49.3%), Displacement due to climate events (drought, floods, fires, earthquakes, etc.) (1, 0.5%), Other reason, specify {mig3_other} (74, 33.8%)



Download image

Table 1. Sample Demographics

	Range, if Applicable	Full Sample %/M (StDev)	Females %/M	Males %/M	p-value	
<i>Demographics</i>						
Female		69.7	-	-		
Married		39.3	32.9	55.6		
Live w/Significant Other		67.2	58.8	88.9		
Pregnant/Spouse is Pregnant		15.6	18.8	8.3		
Age		33.9 (8.2)	32.8 (7.9)	36.5 (8.5)	.020	a
Number of Children		2.17 (1.3)	2.08 (1.2)	2.3 (1.4)	.275	a
Months Employed in Past Year		6.91 (4.9)	6.3 (5.1)	8.31 (4.1)	.041	a
Years of Education					.141	a
0		2.5	1.2	2.0		
1-6		27.4	27.1	27.8		
7-9		20.6	21.2	19.5		
10-12		24.8	22.4	30.6		
13-15		14.1	14.1	13.9		
16+		10.6	14	2.8		
<i>Language Abilities</i>						
Spanish Spoken at Home		93.4	95.3	91.7	.423	b
Ability to Understand English	1-10	3.2 (2.3)	2.8 (2.1)	3.8 (2.7)	.023	a
Ability to Speak English	1-10	2.6 (2.1)	2.3 (1.6)	3.3 (2.9)	.013	a
<i>Immigration Characteristics</i>						
First time in U.S.		90.9	92.9	86.1	.236	b
First time Crossing U.S. Border		80.2	82.4	75.0	.358	b
Traveling with Children		89.3	87.1	94.4	.234	b
No food for more than a day		72.7	72.9	72.2	.936	b
Dehydration		62.8	58.8	72.2	.166	b
Illness/Injury		58.7	60.0	55.6	.653	b
Lack of Medical Care		68.6	68.2	69.4	.897	b
Mental Health Crisis		75.2	77.6	69.4	.344	b
Lack of Personal Hygiene		65.3	65.9	63.9	.835	b
Lack of Food for Children		63.3	61.2	68.6	.449	b
Apprehended Upon Arrival		95.0	96.5	91.7	.270	b
Days Apprehended (if applicable)		2.0	1.9	2.1	.105	a
Days from start of journey to interview		131.2	104.1	200.1		

Country of origin and days migrating

Table 2. Country Demographics

	Full Sample (%)	Females (%)	Males (%)	Migration Days M/StDev	Migration Days Median	% Prolonged Stay in Mexico	% Held in Mexico
Country of Origin							
Colombia	1.7	2.4	-	9.0 (7.1)	9.0	50.0	0.0
Cuba	2.6	3.5	-	23.0 (4.0)	23.0	100.0	33.3
Ecuador	2.6	2.4	2.8	13.0 (6.9)	9.0	33.3	0.0
El Salvador	11.5	12.7	8.3	38.4 (74.7)	15.0	100.0	50.0
Guatemala	9.1	11.8	2.8	40.4 (94.7)	12.0	90.9	20.0
Haiti	4.2	2.4	8.3	1795.0 (1030.8)	2042.0	100.0	0.0
Honduras	21.4	21.2	22.2	98.6 (206.8)	25.0	100.0	50.0
Mexico	1.7	2.4	-	215.0 (14.1)	215.0	100.0	100.0
Nicaragua	38.6	35.3	47.2	25.9 (15.9)	20.5	87.0	28.2
Peru	4.9	3.5	8.4	7.6 (2.8)	9.0	50.0	66.7
Venezuela	1.7	2.4	-	50.0 (8.4)	50.0	100.0	100.0



Trauma Experiences

Table 3. Harvard Trauma Questionnaire Results

	% of Trauma by Full Sample	Males				Females				χ^2 (sex & 2-level trauma)	χ^2 (sex & 4-level place)
		No Exposure	Home Country	After	Both	No Exposure	Home Country	After	Both		
Forced to hide	75.0	19.4	22.2	38.9	19.4	28.2	9.4	40.0	22.4	.148	.261
Lack of food or water	70.0	36.1	5.6	25.0	33.3	28.2	9.4	28.2	34.1	.327	.784
→ Confined to home because of danger outside	70.0	27.8	0.0	55.6	16.7	31.8	44.7	4.7	18.8	.335	.473
→ Extortion or robbery	62.5	33.3	13.9	25.0	27.8	40.0	15.3	25.9	18.8	.252	.734
Ill health without access to medical care	59.2	41.7	13.9	11.1	33.3	41.2	12.9	18.8	27.1	.536	.736
→ Forced evacuation under dangerous conditions	59.2	30.6	55.6	5.6	8.3	45.9	36.5	7.1	10.6	.059	.279
Lack of shelter	53.3	58.3	13.9	11.1	16.7	42.4	24.7	8.2	24.7	.101	.294
→ Exposure to frequent and unrelenting gun fire	53.3	38.9	47.2	2.8	11.1	50.6	37.6	5.9	5.9	.127	.435
Serious physical injury of family/friend due to combat	52.5	69.4	27.8	0.0	2.8	76.5	22.4	0.0	1.2	.249	.647
→ Murder, or death due to violence, of other family/friend	52.5	38.9	58.3	2.8	0.0	51.8	48.2	0.0	0.0	.104	.154
Forced separation from family members	51.7	55.6	16.7	25.0	2.8	45.9	25.9	24.7	3.5	.262	.692
Witness beatings to head or body	45.0	47.2	47.2	2.8	2.8	58.8	0.0	37.6	3.5	.134	.309
Beating to the body	40.0	58.3	41.7	0.0	0.0	61.2	32.9	1.2	4.7	.417	.441
Confiscation or destruction of personal property	39.2	69.4	13.9	5.6	11.1	57.6	22.4	10.6	9.4	.182	.519
→ Disappearance or kidnapping of other family/friend	33.3	69.4	22.2	8.3	0.0	65.9	25.9	8.2	0.0	.476	.912
Enforced isolation from others	30.8	72.2	11.1	11.1	5.6	68.2	10.6	14.1	7.1	.454	.956
→ Combat situation (e.g. shelling and grenade attacks)	25.8	58.3	41.7	0.0	0.0	81.2	18.8	0.0	0.0	.007	.012*
→ Serious physical injury from combat situation	25.8	52.8	44.4	2.8	0.0	45.9	49.4	1.2	3.5	.362	.563
→ Other types of sexual abuse or sexual humiliation	24.2	91.7	8.3	0.0	0.0	69.4	24.7	4.7	1.2	.007	.043*
→ Witness killing/murder	22.5	72.2	25.0	0.0	2.8	80.0	18.8	1.2	0.0	.215	.328
Present while someone searched your home	20.8	77.8	0.0	19.4	2.8	80.0	16.5	2.4	1.2	.451	.709
Kidnapped	19.3	77.8	2.8	16.7	2.8	82.4	2.4	15.3	0.0	.347	.480
Someone was forced to betray you, risking death/injury	19.3	77.8	19.4	2.8	0.0	82.4	0.0	16.5	1.2	.347	.395
→ Rape	17.5	97.2	2.8	0.0	0.0	76.5	18.8	2.4	2.4	.004	.035*
→ Torture (i.e., beating, mutilation, etc)	16.7	80.6	13.9	2.8	2.8	84.7	12.9	2.4	0.0	.352	.485

*=Fisher's Exact test p-value

Trauma Experiences Contd.

Table 3. Continued

Table 3: Continued											χ^2 (sex & 2-level trauma)	χ^2 (sex & 4-level place)
	% of Trauma by Full Sample	Males				Females						
		No Exposure	Home Country	After	Both	No Exposure	Home Country	After	Both			
Forced labor (like animal or slave)	14.2	86.1	11.1	0.0	2.8	85.9	10.6	2.4	1.2	.593	.742	
Imprisonment	10.8	83.3	11.1	2.8	2.8	91.8	2.4	5.9	0.0	.136	.053*	
Witness torture	10.8	80.6	16.7	0.0	2.8	92.9	4.7	1.2	1.2	.044	.088*	
Knifing or axing	7.5	86.1	13.9	0.0	0.0	95.3	4.7	0.0	0.0	.081	.124*	
Murder, or death due to violence, of spouse	5.8	100.0	0.0	0.0	0.0	91.8	8.2	0.0	0.0	.083	.102	
Disappearance or kidnapping of spouse	5.8	94.4	2.8	2.8	0.0	94.1	4.7	1.2	0.0	.668	.733	
Witness rape or sexual abuse	5.0	100.0	0.0	0.0	0.0	92.9	3.5	3.5	0.0	.120	.263	
Forced to physically harm non-family/friend	3.3	97.2	2.8	0.0	0.0	97.6	2.4	0.0	0.0	.648	.657	
Murder, or death due to violence, of son or daughter	3.3	91.7	8.3	0.0	0.0	98.8	0.0	1.2	0.0	.074	.025*	
Prevented from burying someone	2.6	97.2	2.8	0.0	0.0	97.6	2.4	0.0	0.0	.634	.657	
Forced to physically harm family member, or friend	2.5	91.7	8.3	0.0	0.0	98.8	1.2	0.0	0.0	.074	.078*	
Forced to destroy someone else's property or possessions	2.5	94.4	5.6	0.0	0.0	98.8	1.2	0.0	0.0	.203	.211	
Forced to betray family/friend risking their death/injury	2.5	97.2	2.8	0.0	0.0	97.6	2.4	0.0	0.0	.648	.657	
Forced to betray non-fam./friend risking their death/injury	2.5	94.4	5.6	0.0	0.0	98.8	1.2	0.0	0.0	.203	.211	
Disappearance or kidnapping of son or daughter	2.5	100.0	0.0	0.0	0.0	96.5	2.4	1.2	0.0	.352	.521	
Forced to find and bury bodies	1.7	97.2	2.8	0.0	0.0	98.8	0.0	1.2	0.0	.500	.248	
Other Trauma Questions												
→ Have you ever witnessed an armed conflict/confrontation?	63.3	27.8	0.0	63.9	8.3	41.2	48.2	3.5	7.1	.081	.294	
→ Have you ever been threatened with a firearm?	50.0	30.6	47.2	11.1	11.1	58.8	32.9	2.4	5.9	.002	.011*	
Have you ever been threatened with any other weapon?	30.8	66.7	0.0	30.6	2.8	70.6	24.7	3.5	1.2	.375	.563	
Have you suffered from natural disaster?	45.8	52.8	47.2	0.0	0.0	55.3	44.7	0.0	0.0	.426	.843	

*= Fisher's Exact test p-value



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PRESENTATION TITLE

Mental Health

Measures:

- CAT-MH (screener and score 0-100 with classification of severity)
- GAD-7 (Anxiety)
- PHQ-9 (Depression)
- PCL-5 (PTSD)
- BRS (Brief Resilience Scale)

CATH-MH Major Depressive Disorder (MDD)			
MDD Screener		MDD Severity	
<i>Count</i>		<i>Count</i>	
Positive	157	Normal	34
Negative	61	Mild	136
		Moderate	33
		Severe	15
Total	218	Total	218
<i>Percentage</i>		<i>Percentage</i>	
Positive	72%	Normal	16%
Negative	28%	Mild	62%
		Moderate	15%
		Severe	7%

CAT-MH Post-Traumatic Stress Disorder (PTSD)			
PTSD Screener		PTSD Severity	
<i>Count</i>		<i>Count</i>	
Positive	45	None	87
Negative	173	Mild	38
		Moderate	44
		Severe	49
Total	218	Total	218
<i>Percentage</i>		<i>Percentage</i>	
Positive	21%	None	40%
Negative	79%	Mild	17%
		Moderate	20%
		Severe	22%

CAT-MH Anxiety Disorder	
Anxiety Severity	
<i>Count</i>	
Normal	61
Mild	47
Moderate	36
Severe	74
Total	218
<i>Percentage</i>	
Normal	28%
Mild	22%
Moderate	17%
Severe	34%

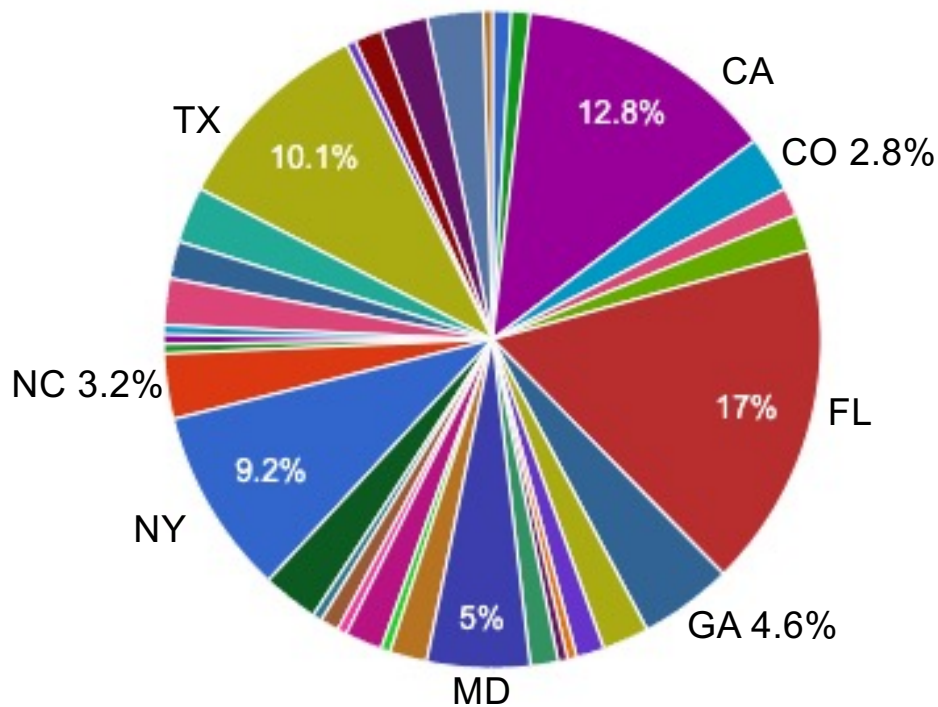
EXTORTION

- 149 people endorsed being extorted or robbed of 218 individuals who answered the question (68.3%)
- 35 of 54 respondents (of the added question) endorsed being extorted (64.8%)
- Most people were extorted by only 1 type of person but 13 were extorted by 2-5 types of people
- **Police** were the most common type of **extortioner** with 25 out of 35 (71.4%); followed by 10 endorsing **immigration officials** (40%)
- of the 33 who did report some amount for which they were extorted, **the average amount per person was \$860.39 USD** using the 2/13 conversion rate

Location	Ecuador	Peru	Colombia	Colombia-Panama	Costa Rica	Nicaragua	Honduras	Guatemala	Mexico
Known Amounts	3000	3127.692		400	190	100	2029.24	100	3600
		130.3205		600			405.848	100	100
							1461.0528	202.924	300
								12.7616	133.818
								300	53.5272
								255.232	300
								127.616	1100
								25.5232	1070.544
								26.7636	107.0544
								89.3312	3000
								89.3312	267.636
								100	100
								50	400
								250	26.7636
								405.848	10.70544
									200
									200
									42.82176
									400
									160.5816
# Reported \$	1	2	0	2	1	1	3	15	20
Total Reported	3000	3258.0125	0	1000	190	100	3896.1408	2135.3308	11573.452
Average \$ Paid	3000	1629.01		500	190	100	1298.71	142.35	578.67

New Biden Immigration Policy (effective 5/11/23): Under the new rule, border authorities will deny asylum to most migrants who arrive at an official port of entry along the U.S.-Mexico border **without having first applied for asylum in a third country traversed along the way**. Migrants who do not schedule an appointment at a point of entry or use other available humanitarian programs will be deported to their home countries.

Where do Immigrants go?



Immigrants travelled to 34 different states



Instructions on Cell Phone for Immigrant to take a weekly selfie and upload for ICE

What is next in my journey?

- Multi-site longitudinal design
- Mental health and continued trauma exposure of recent immigrants from Latin America
- Fills a gap in understanding of the early trajectories of mental health and trauma exposure among recent immigrants



I'm happy to answer your questions 😊

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