



MEMORANDUM

Date: October 8, 2020

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

A handwritten signature in black ink, appearing to read "CHH", is written over the printed name "C.H. Huckelberry".

Re: **Undocumented Border Cross (UBC) Recoveries in 2020**

In a recent meeting with the Chief Medical Examiner, Dr. Gregory Hess, I was alerted to the unusual number of UBC deaths in Pima County. This subject is particularly concerning since the United States and Mexico Border has been officially closed for months. In addition, there is significant border wall construction occurring along many portions of Pima County's border with Mexico.

Most concerning is if these counts continue at the present pace, the number of UBC deaths is projected to top 200 by the end of the year, placing 2020 within the top three highest years over the last 21 years that the Medical Examiner has been tracking this death category.

Attached is a more detailed report alerting you to this concerning trend.

CHH/anc

Attachment

c: Jan Leshar, Chief Deputy County Administrator
Francisco García, MD, MPH, Deputy County Administrator & Chief Medical Officer,
Health and Community Services
Dr. Gregory Hess, Chief Medical Examiner



OFFICE OF THE MEDICAL EXAMINER

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MEMORANDUM

Date: October 6, 2020

To: Chuck Huckelberry
County Administrator

From: Gregory Hess, M.D. 
Chief Medical Examiner

Via: Francisco Garcia, M.D. 
Deputy County Administrator

Re: **Undocumented Border Crosser (UBC) Recoveries in 2020**

As we recently discussed, UBC recoveries/deaths are markedly increased through the first three quarters in 2020 in comparison to the annual average of the previous nine years. 2020 UBC numbers are projected to be within the top three highest over the 21 years we have been tracking this death category. Attached to this cover letter memorandum are two documents; *Undocumented Border Crosser (UBC) Remains – 2020 Partial Year Update* that illustrates the current issue, and *Undocumented Border Crosser (UBC) Remains – 20 Years* lifted from the PCOME 2019 Annual Report that discusses the past 20 years of these recoveries for background information.

By way of quick summary....

- Partial 2020 UBC recoveries through three quarters (177) represents a 22% increase in comparison to average annual recoveries over the last nine years (145)
- 2020 UBC recoveries are projected to top 200 by the end of the year, placing 2020 within the top three highest years over the 21 years we have been tracking this death category
- This spike in UBC recoveries/deaths is likely secondary to environmental causes – record heat and record lack of precipitation in 2020



Gregory L. Hess, M.D. Chief Medical Examiner

**UNDOCUMENTED BORDER CROSSER (UBC) REMAINS
2020 PARTIAL YEAR UPDATE**

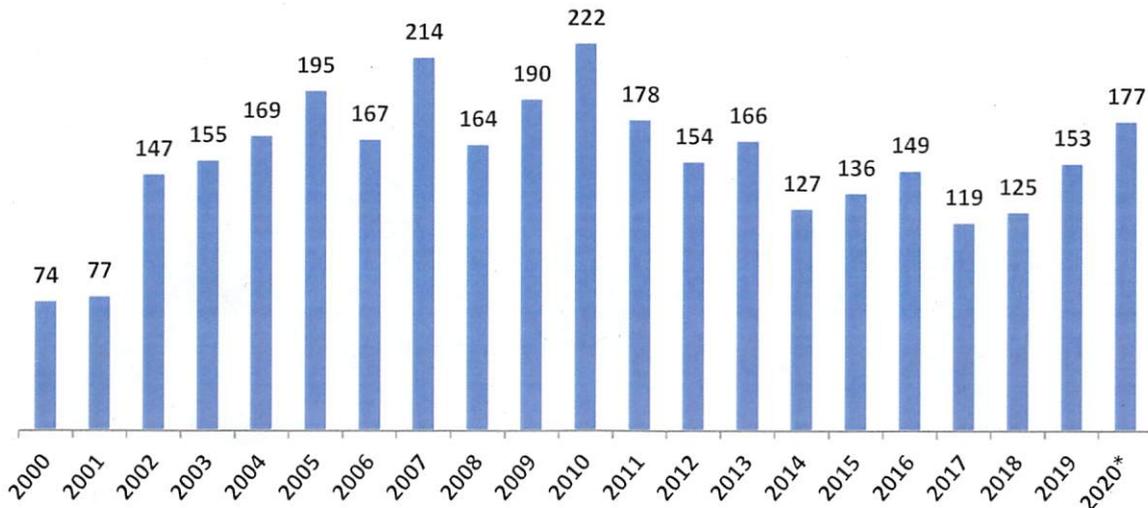
Undocumented Border Crosser (UBC) Remains

2020 Partial Year Update

What's going on?

The remains of 177 UBCs have been recovered in Southern Arizona through the first three quarters (January 1, 2020 – September 30, 2020) of calendar year (CY) 2020. This represents a 15.68% increase in comparison to the total number of remains recovered in 2019 (153 UBC remains) and a 22% increase in comparison to the annual average number of UBC remains recovered (145 remains per year average) over the last nine years.

UBC Recoveries CY2000 - 2020*

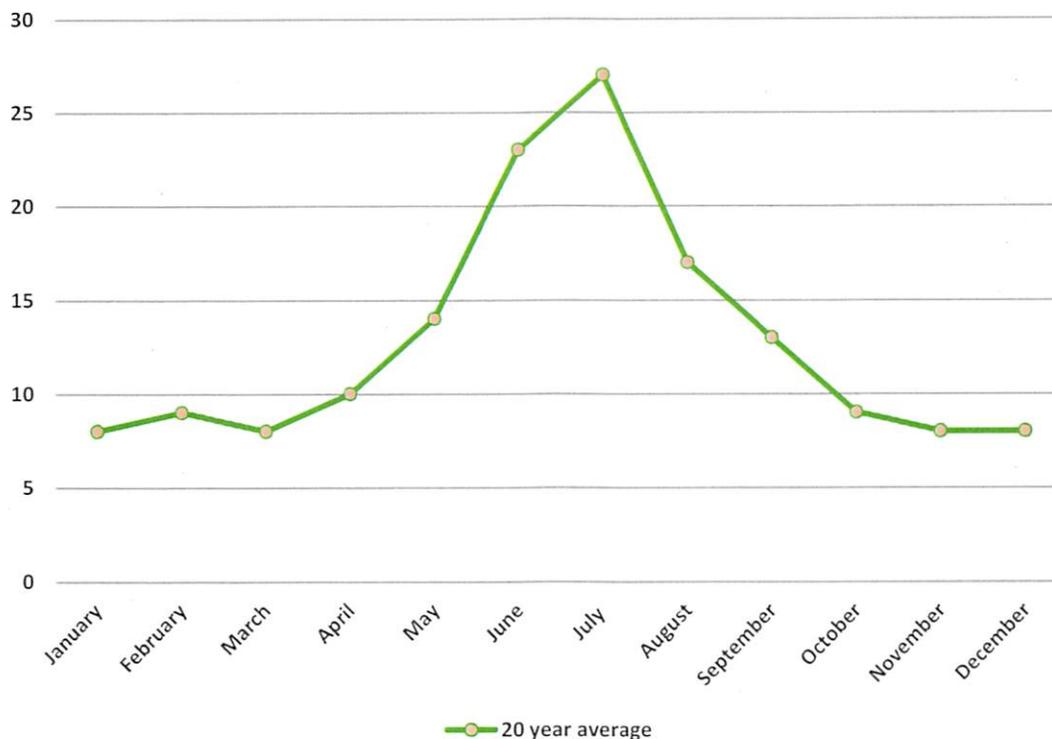


*2020 – First three quarters, January 1 – September 30, 2020

- 15.68% increase 2019 (entire year-153) vs 2020 (9 months-177)
- 22% increase average of last 9 years (2011 – 2019, 145/year average) vs 2020 (177 so far)

One can extrapolate the county further through the end of 2020 by looking at historical monthly averages of remains recovered as seen in the following chart.

Average recoveries by month for previous 20 years – not including 2020



- Monthly average number of UBC recoveries for last 20 years: October (9), November (8), and December (8)
- If 2020 fourth quarter were exactly the same as the previous 20 years, then the 2020 projected total recoveries would be 202
 - Math: 177 (quarters 1-3 2020) + 25 (quarter 4 2020 projection) = 202 for 2020

If 202 did indeed turn out to be the total number of UBCs recovered in 2020, then 2020 would become the third highest year for recoveries behind 2007 (214) and 2010 (222), as seen in the first chart.

Why are you bringing this up now prior to the end of the year?

This represents an alarming reverse to what was a downward trend in recoveries from our high point in 2010. Seven years following our high (222) in 2010, we reached a low (119) in 2017. 2018 and 2019 showed increases in comparison to 2017, but 2020 marks an abrupt change (22% increase) with just three quarters of data in comparison to entire years as seen on the previous page.

Why are UBC recoveries increased in 2020?

Probably secondary to the record heat resulting in an increased incidence/risk of death per crosser. 2020 saw....

- Record for most 100° days in a year
- Second driest Monsoon on record
- Hottest May, July, August and September on record

The UBC section of the 2020 annual report (release expected in the 2nd quarter of 2021) will shed some additional light on this with the usual charts by cause of death, body condition, age, sex, etc., that could be used to help illustrate the role the environment contributed to UBC deaths in 2020.

Other, less likely, theories as to why UBC recoveries are increased in 2020

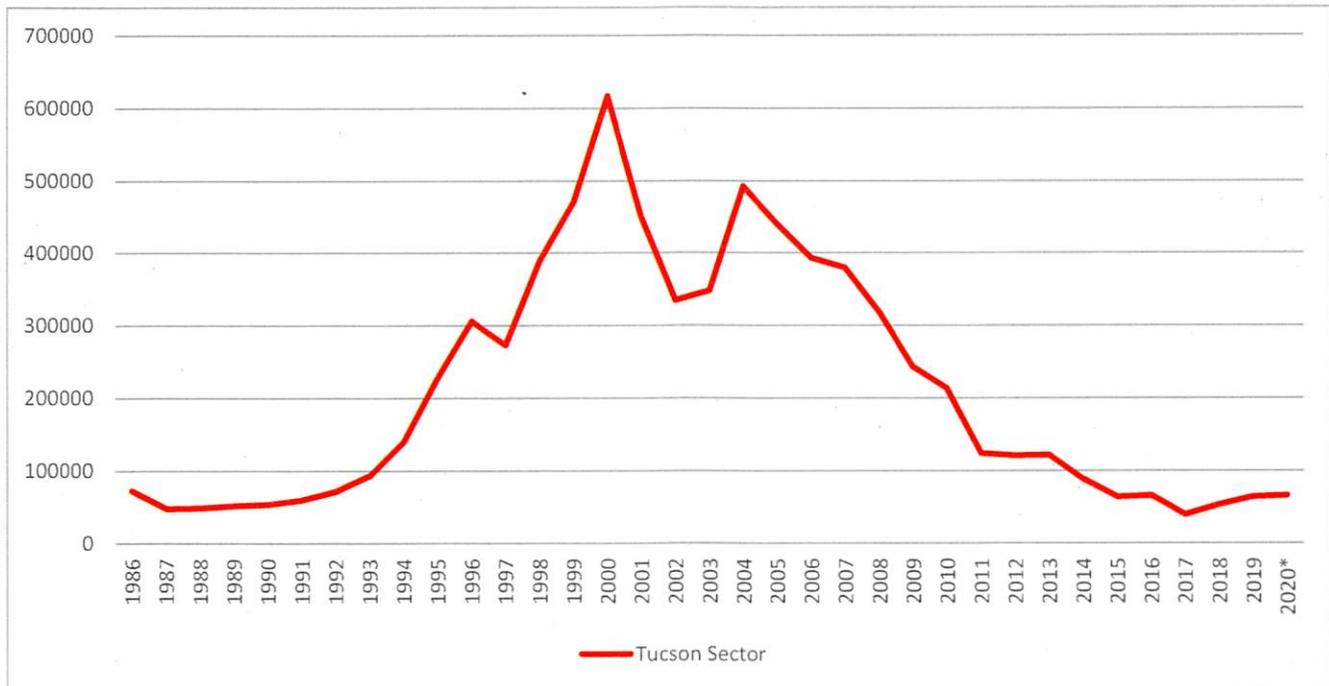
Could location of crossing play a factor? Are UBCs crossing in more remote areas than they traditionally have?

No, location does not appear to be significant factor, in comparison to previous years. The Arizona OpenGIS Initiative for Deceased Migrants (<https://humaneborders.info/>) houses the recovery location data for all reported UBC deaths to the PCOME and is freely accessible to anyone who wishes to peruse it. Review of the 2020 location data in comparison to previous years does not reveal any significant trends apparent to me.

Is there a huge increase in crossings in comparison to previous years and is the increase in deaths simply a byproduct of increased traffic/crossings?

No. To be fair, no one knows how many people cross through Southern Arizona. We know how many people are apprehended, but we do not know how many people cross successfully without being apprehended. USBP apprehension data can be used as a proxy for volume though. Increased apprehensions is a by-product of increased traffic through a Sector and apprehensions by Sector waxes and wanes over time. Apprehension data for the Tucson Sector of the USBP is below.

Apprehensions by Federal Fiscal Year – Tucson Sector



*Estimated apprehensions from USBP data <https://www.cbp.gov/newsroom/stats/sw-border-migration/usbp-sw-border-apprehensions>

Apprehensions within the Tucson Sector remain essentially unchanged from FY2019 to FY2020. There does not appear to be a sudden large spike in the number of people crossing through Southern Arizona, as we would expect to see a rise in apprehensions to reflect that if true.

Is there a change in the characteristics or demographics of the decedents recovered in 2020 that may somehow contribute to an increase in deaths?

No, there does not appear to be. Age, sex, nationality are all subjectively within the norm in 2020 in comparison to previous years. Please reference the *Undocumented Border Crosser (UBC) Remains – 20 Years* attachment for an objective accounting of the history of the issue. Although I have not generated all the associated charts for 2020 UBCs customarily seen in the Annual Reports, again, subjectively there do not appear to be any striking changes concerning our average UBC decedent.

What about the pandemic?

True, true, unrelated. There is a viral pandemic in 2020. True. UBC recoveries/deaths are increased in 2020. True. I can find relationships between the two statements. No UBC deaths certified in 2020 were attributed to COVID, or the pandemic in some peripheral fashion. It seems unlikely that a UBC from Mexico or Central America is entering the United States for the purposes of fleeing the pandemic in their originating Country or that one would feel safer from the pandemic in the US vs anywhere else. I believe the phenomena are simply unrelated.

UNDOCUMENTED BORDER CROSSER (UBC) REMAINS

~ 20 YEARS ~

UNDOCUMENTED BORDER CROSSER (UBC) REMAINS

~ 20 YEARS ~

The term 'UBC' refers to foreign nationals who die attempting to cross the southern Arizona desert without permission from the United States government. Calendar year (CY) 2010 saw the highest number of UBC recoveries (222) recorded at the PCOME as compared to the annual average (163 recoveries per year on average from 2002 - 2019). The PCOME has received 3,081 recovered remains of suspected UBCs since 2000. The recoveries per year are adjusted annually to account for the association of remains found months or years apart later discovered to be that of the same individual.

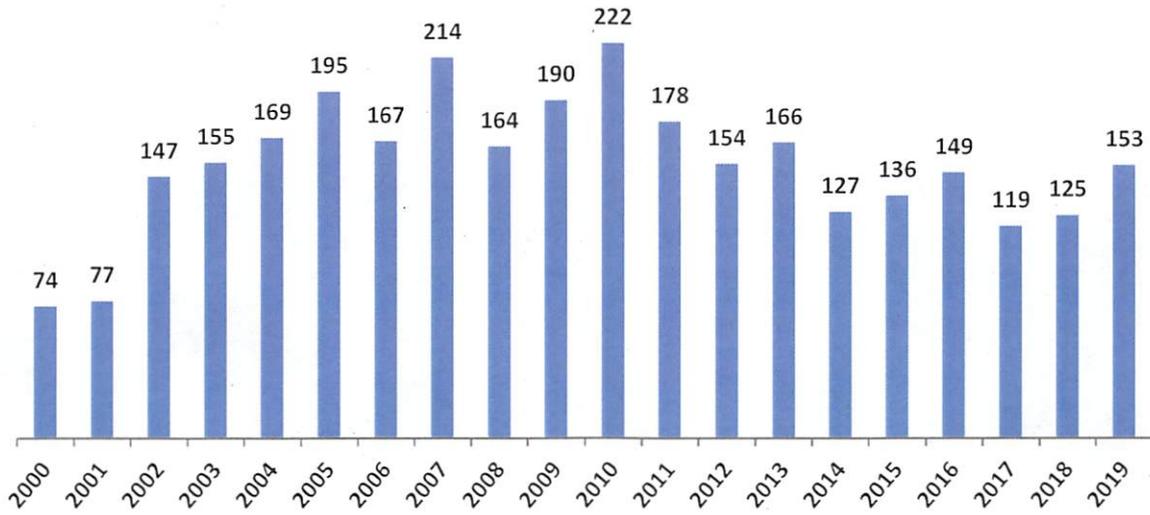
There were 153 UBC recoveries in calendar year 2019. Of the decedents who were identified, 71% (35 decedents) were between 20-39 years of age. Additionally, 76% (116) of the recovered remains, identified or unidentified, were males, 8% (12) were females and in 16% (25) the sex was unable to be determined at the time of the writing of this report.

Since the exact date and time of death of found remains are often unknown, PCOME staff determine a 'postmortem interval (PMI)', which is an assessment of what period of time elapsed from death to recovery of the remains. A 1-8 body condition scale was developed in 2013 to provide a more objective measure of the PMI. The PMI is an estimate and therefore subject to error. The PMIs for the body condition categories are listed following the Condition of Recovered UBC Remains table on page 34 of this report. In 2019, 11 remains (condition 1) were found within less than a day of death (7%), 45 remains (conditions 2-4) were found with a few days up to a few weeks from death (29%), and skeletal remains (body conditions 5-7) accounted for 97 (63%) of the recovered remains.

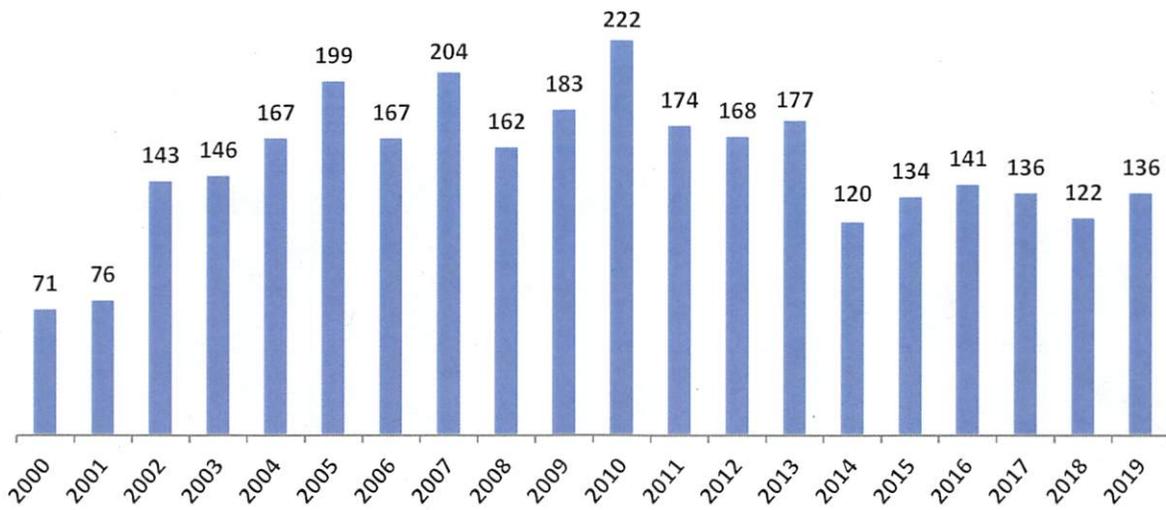
The cause of death was undetermined in 80% (122) of cases, primarily due to limitations of examination of decomposed and skeletal remains. Of the remainder, environmental exposure to extremes in heat or cold combined with dehydration comprised 17% (29) of deaths. Other, less frequent, causes of death included hanging (1 case), and natural causes (1 case).

In 2019, 20 (41%) of identified UBCs were of Guatemalan nationality, followed by Mexicans (18 or 37%), Hondurans (2 or 4%), Salvadorans (5 or 10%), Ecuadorians (2 or 4%), one Indian (1 or 2%) and one Nicaraguan (1 or 2%). Since 2000, identified UBCs of Mexican nationality have been the most numerous (1,592, 81%), followed by Guatemalans (223, 11%) and Salvadorans (58, 3%). Of the 3,081 decedents recovered since 2000, 1,970 (64%) have been identified. As of December 31, 2019, 1,111 decedents remain unidentified.

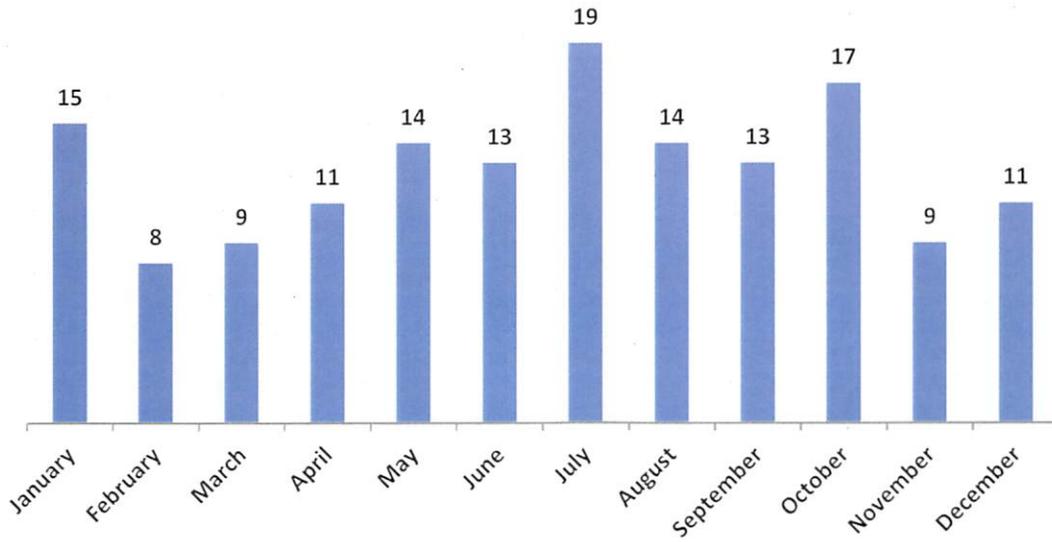
UBC Recoveries CY2000 - 2019



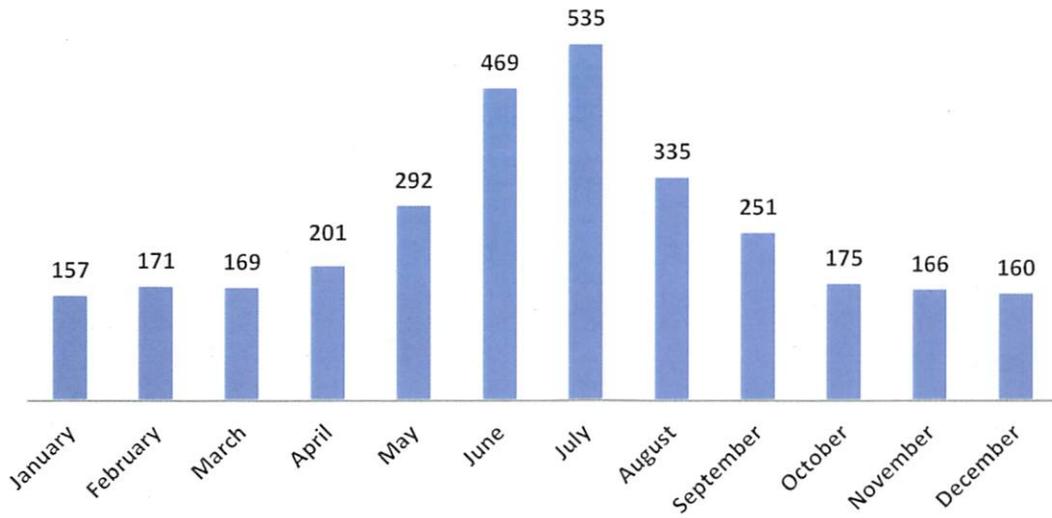
UBC Recoveries FedFY2000 - 2019



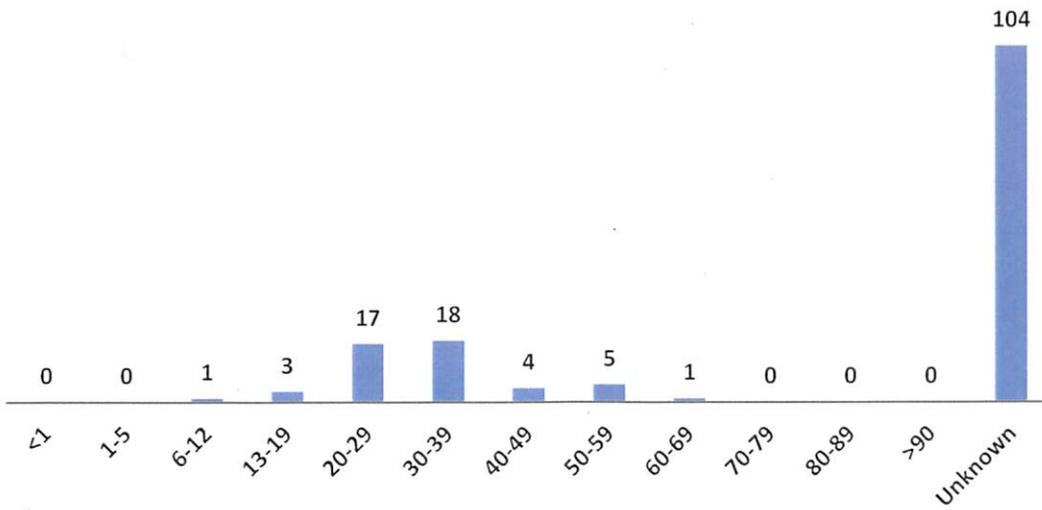
UBC Recoveries by Month 2019



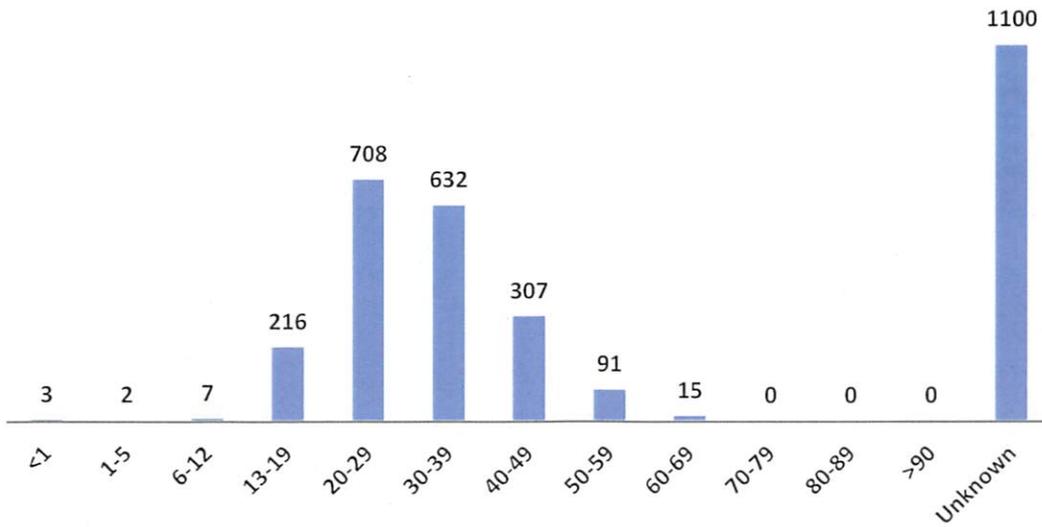
UBC Recoveries by Month 2000 - 2019



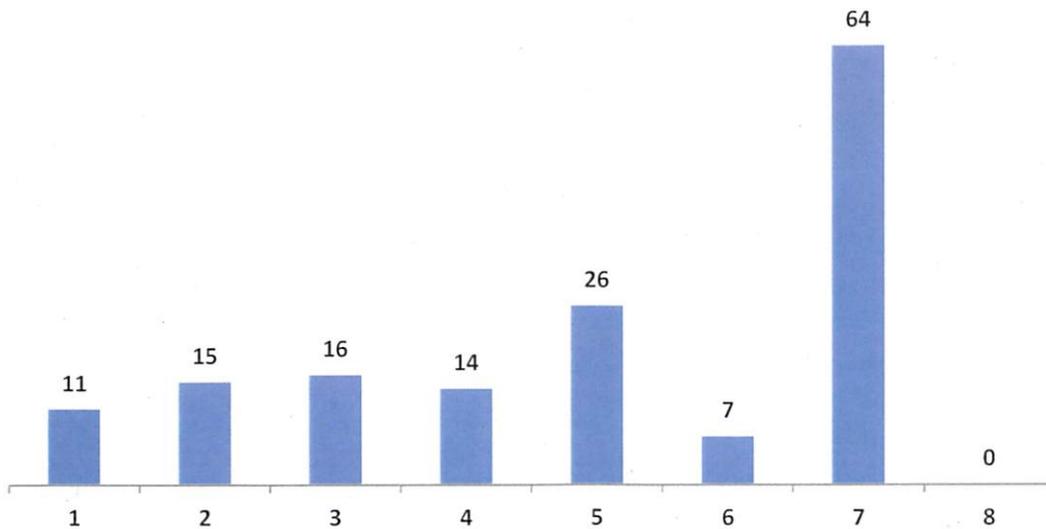
UBC Recoveries by Age 2019



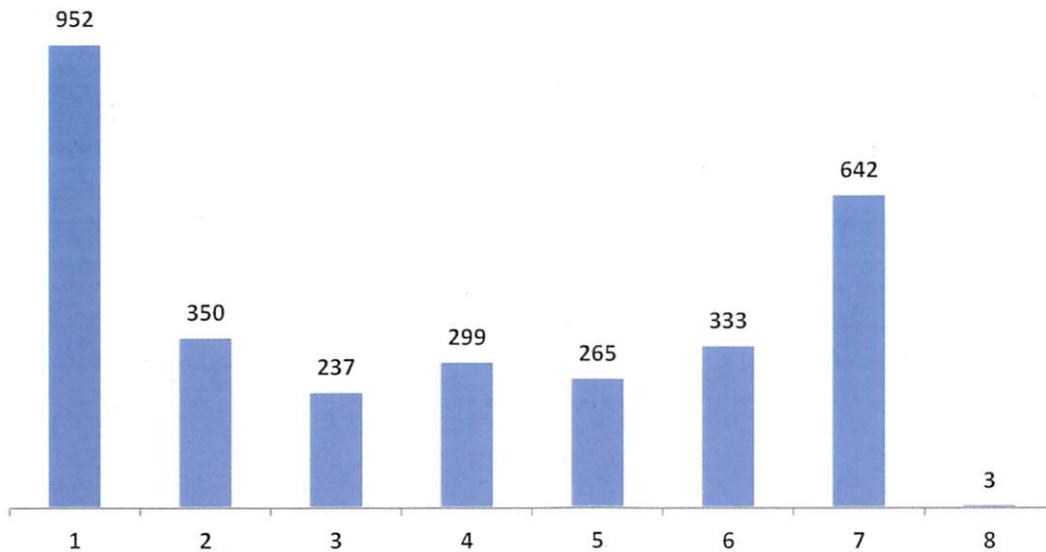
UBC Recoveries by Age 2000 - 2019



Condition of Recovered UBC Remains 2019

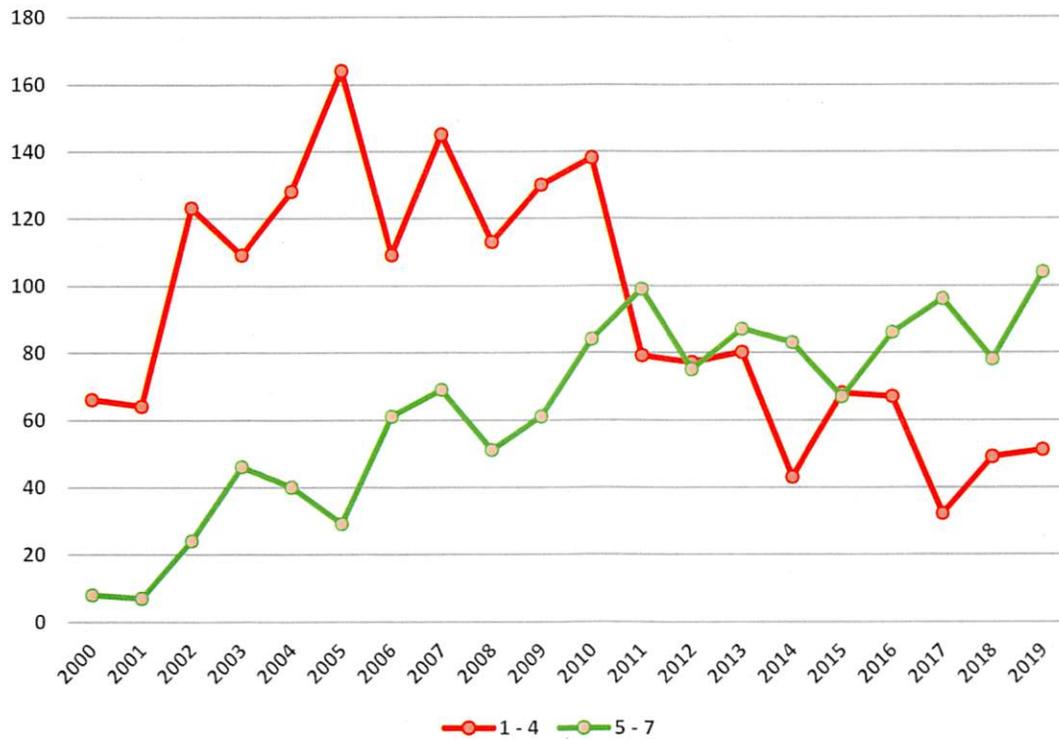


Condition of Recovered UBC Remains 2000 - 2019



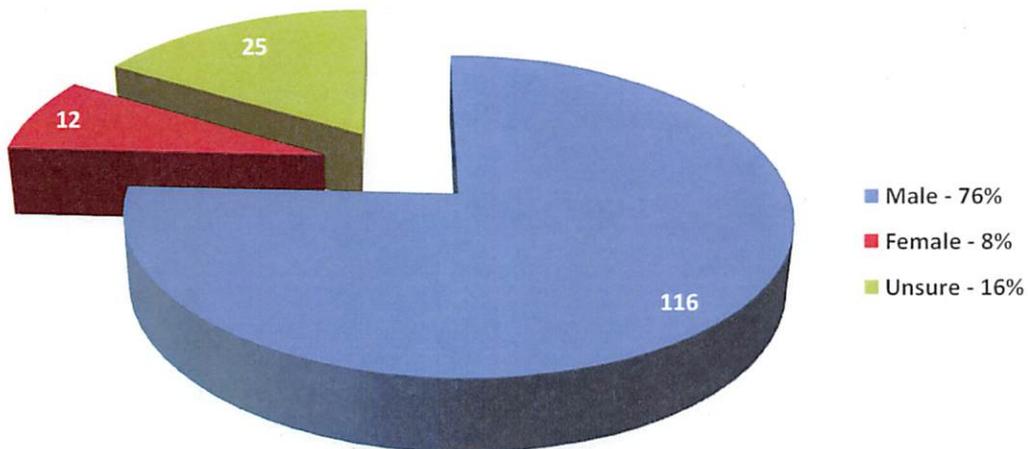
- 1 - Fully fleshed (PMI < 1 day)
- 2 - Decomposed (PMI < week)
- 3 - Decomposition with focal skeletonization (PMI < 3 weeks)
- 4 - Mummification with skeletonization (PMI < 5 weeks)
- 5 - Skeletonization with articulation/ligamentous attachments (PMI < 3 months)
- 6 - Complete skeletonization with disarticulation (PMI < 6-8 months)
- 7 - Complete skeletonization with bone degradation (PMI > 6-8 months)
- 8 - Other

Pooled Body Conditions of Recovered UBC Remains by Year 2000 - 2019

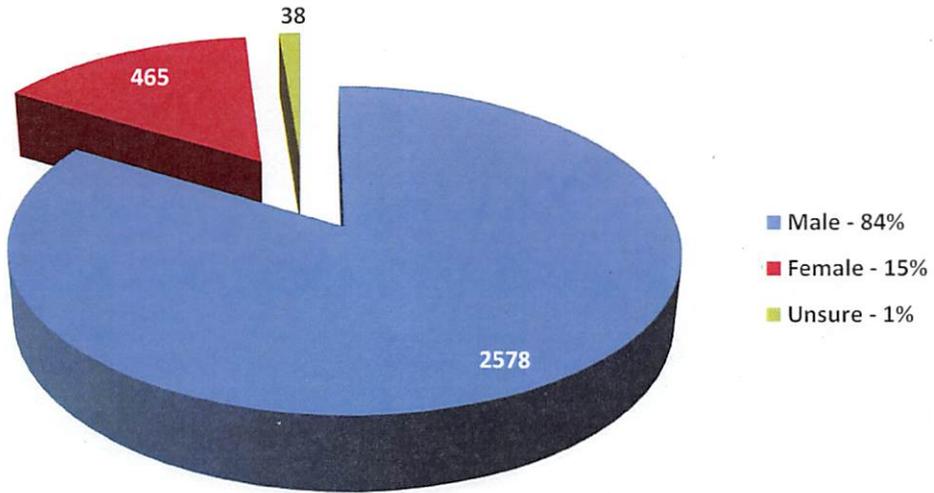


1 - 4 represents not fully skeletal remains with a likely PMI of ≤ 3 months
 5 - 7 represents fully skeletal remains with a likely PMI of ≥ 3 months

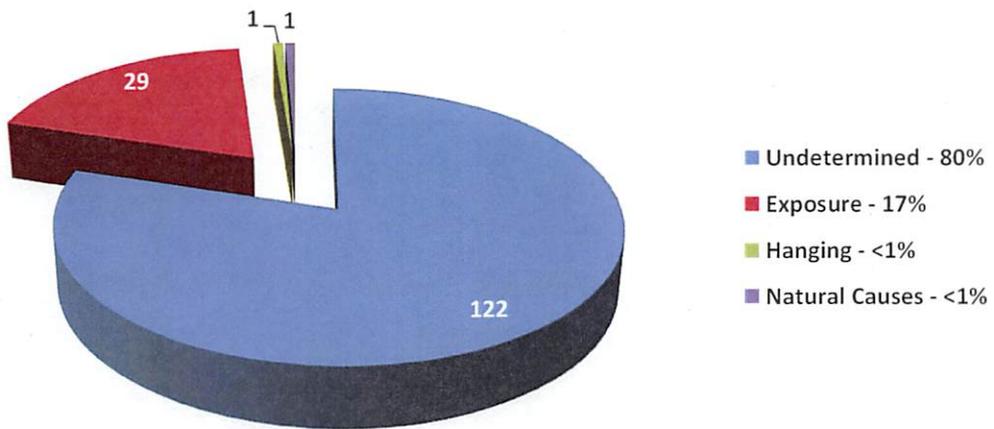
UBC Recoveries by Sex 2019



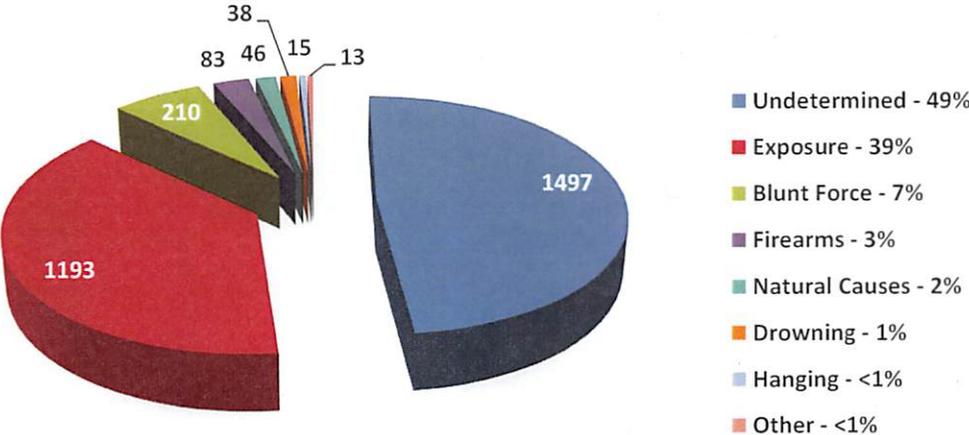
UBC Recoveries by Sex 2000 - 2019



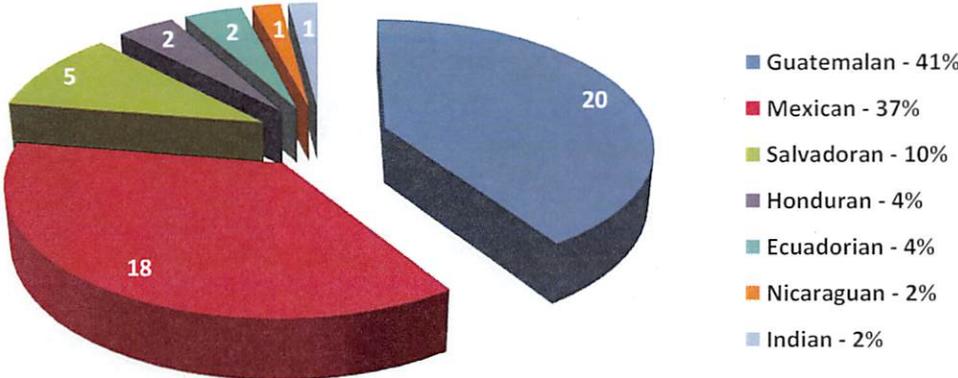
UBC Recoveries by Cause 2019



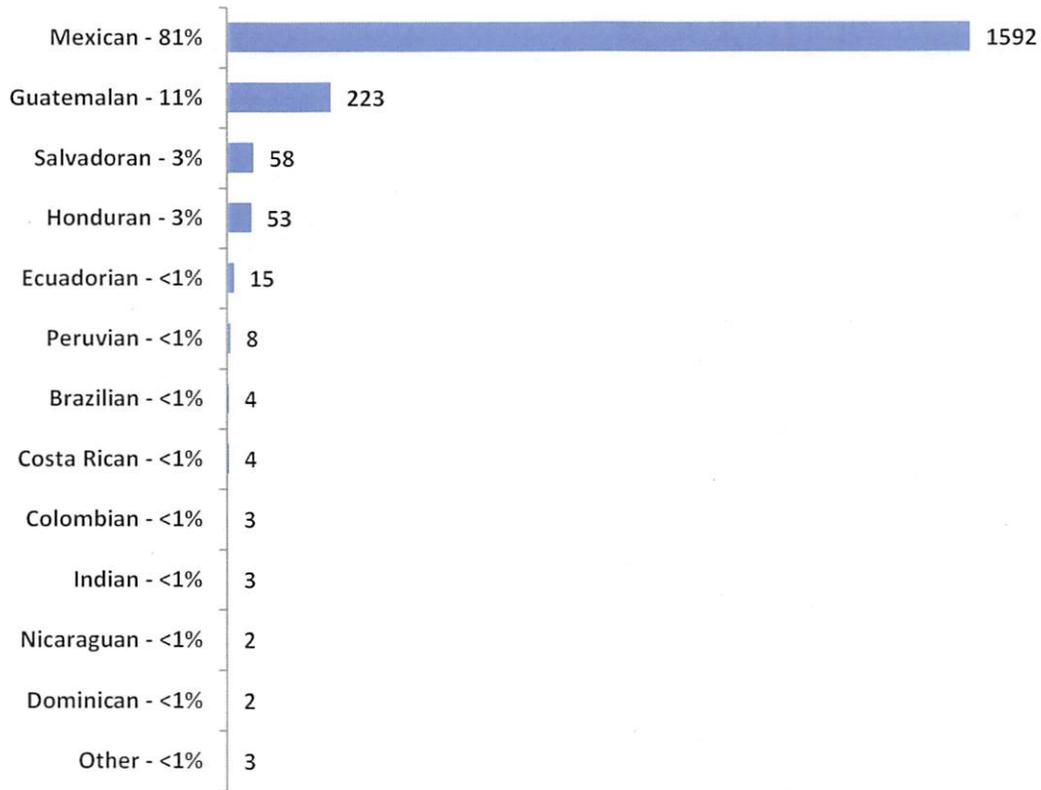
UBC Recoveries by Cause 2000 - 2019



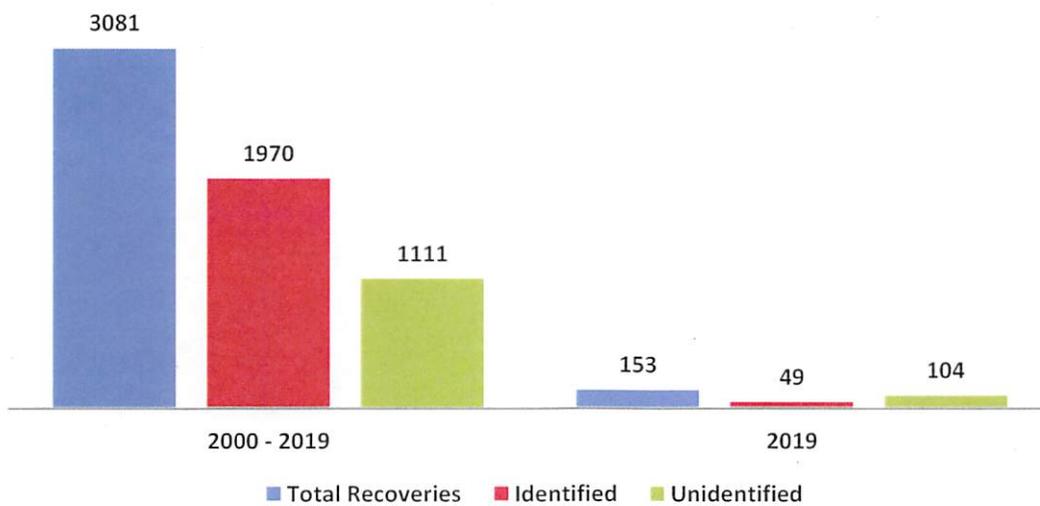
Identified UBC Recoveries by Nationality 2019



Identified UBC Recoveries by Nationality 2000 - 2019



Identified vs Unidentified UBC Recoveries



UBC Methods of Identification 2000 - 2019

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Totals
Visual	20	22	68	45	51	56	50	71	57	68	64	22	21	31	12	13	13	5	9	4	702
Circumstances	28	30	29	36	37	34	23	31	21	15	14	18	10	8	5	9	3	1	3	6	361
Fingerprints	12	4	19	22	25	41	25	31	15	20	17	27	29	13	8	19	43	21	31	32	454
DNA	1	2	3	16	16	18	16	19	20	25	55	37	32	46	37	35	14	13	11	6	422
Dental	0	0	2	0	2	1	0	2	0	1	1	0	2	2	0	0	0	1	0	0	14
Radiography	0	0	0	1	2	0	0	3	1	0	1	0	1	1	0	1	0	0	0	0	11
Identified	61	58	121	120	133	150	114	157	114	129	152	104	95	101	62	77	73	41	54	49	1970
Unidentified	13	19	26	35	36	45	55	56	49	61	70	74	59	65	65	59	76	78	71	104	1111
Total UBCs	74	77	147	155	169	195	169	213	163	190	222	178	154	166	127	136	149	119	125	153	3081
% Identified	82%	75%	82%	76%	79%	77%	67%	74%	70%	68%	68%	58%	62%	61%	49%	57%	49%	34%	43%	31%	64%