



HUMAN TRAFFICKING PREVALENCE STUDY

OVERVIEW

California is one of the largest hubs for human trafficking in the United States, with Los Angeles identified as a major center for exploitation and abuse. Despite this, the City and County have yet to invest in a comprehensive prevalence study, leaving the true scope of the problem poorly understood and limiting their ability to prevent trafficking or develop support services tailored to survivors' lived experiences. A comprehensive prevalence study would provide essential data to assess the scale and characteristics of human trafficking in Los Angeles, providing the foundation for data-driven policies and evidence-based solutions.

SIGNIFICANCE OF A COMPREHENSIVE PREVALENCE STUDY

California has never conducted a comprehensive prevalence study on human trafficking, leaving a significant gap in data that could inform effective policies and services. Los Angeles has the opportunity to lead this effort, serving as a model for the rest of the state to take action. Completing a comprehensive prevalence study will help

Los Angeles-area officials combat trafficking and serve survivors by:

- Gathering data on the prevalence of human trafficking.
- Collecting demographic information on those affected, including data on gender, race, age, and the form of trafficking experienced, whether sex, labor, or both.
- Identifying specific industries that are the most impacted by trafficking, including trafficking by forced criminality.

EXISTING DATA & LIMITATIONS

One of the few existing data sources in Los Angeles County on the prevalence of human trafficking is the annual Greater Los Angeles Homeless Count, conducted by the Los Angeles Housing Services Authority (LAHSA).² Since 2019, LAHSA has included specific questions on human trafficking in its survey, providing one of the only ongoing data sets on this issue in the region. In 2025, the study found that 19.7% of the 4,283 individuals surveyed reported being forced to work (**Table 1**). Similarly, data reported for the City of Los Angeles showed that 20% of the unsheltered adults surveyed experienced human trafficking (**Table 2**). These findings are used to estimate broader trends within the unhoused population and are believed to represent thousands of individuals experiencing trafficking across Los Angeles County and the City. Over time, the percentage of respondents reporting being forced to work has increased, as shown in the data, suggesting a growing recognition of trafficking within the unhoused population.

¹ State of California Department of Justice – What is Human Trafficking?

² U.S. Census Bureau – Los Angeles County

Table 1: Experience of Forced Work (2019-2025)

Source: LAHSA, Greater Los Angeles Homeless Count (See Appendix A)

	2019	2020	2022	2023	2024	2025
Total Surveyed	3931	3873	3887	3473	4081	4283
Forced to Work (n)	627	442	693	438	709	843
% Forced to Work	15.95%	11.41%	17.83%	12.61%	17.37%	19.7%

Table 2: Human Trafficking in City of Los Angeles (2023–2024)

Source: LAHSA (See Appendix \bar{B})

	2023	2024
% Trafficked	13.9%	20%

During the same period, LAHSA data also identify the types of work where survivors most commonly reported being exploited (**Table 3**). Across Los Angeles County, survivors most often cited construction and restaurant or catering work. However, the largest share of reported cases fell under "other," suggesting that many survivors are exploited in sectors that are not being clearly tracked or well understood.

Table 3: Type of Forced Work (2019–2024)

Source: LAHSA, Greater Los Angeles Homeless Count

	2019	2020	2022	2023	2024
Sex Work Only	0	22	20	8	14
Sex Work in Combination with Other Types	30	2	0	4	6
Multiple Types (non sex work)	33	25	0	14	47
Agricultural work	46	55	49	19	42
Door-to-door sales	14	5	12	6	8
Household/childcare work	37	21	44	27	42
Panhandling	25	6	7	1	NA
Restaurant/catering work	38	48	60	39	53
Illegal goods sales	0	0	13	0	0
Construction	NA	NA	NA	NA	186
Other	384	228	425	264	268
Declined/Don't Know	19	30	63	56	43
No Response	1	0	0	0	0
Total	627	442	693	438	709

Forced Work Summary (2025)

Type of Forced Work	Yes
Sex	23
Agri	57
Sales	21
Restaurant	78
Household Work	88
Illegal	14
Construction	224
Other	406

IMPACT

Despite offering some insight into who may be at risk of trafficking, existing data remain limited and fail to capture the full scope of survivor experiences across Los Angeles. These LAHSA findings capture only those vulnerable to trafficking due to lack of housing and therefore do not represent the broader population affected. Research demonstrates that vulnerability extends far beyond homelessness, including immigration status, LGBTQ+ identity, minority status, disability, and experiences of fleeing violence. These limitations highlight the urgent need for the City and County to conduct a comprehensive prevalence study to better identify, prevent, and address trafficking across all communities. Such a study would provide the detailed data needed to design and tailor prevention and support efforts by industry, age, gender, and location of exploitation, helping policymakers and service providers develop more targeted, survivor-informed strategies to address the full scope of trafficking in Los Angeles.

In turn, the Baseline data from such a study would enable Los Angeles to:

- (1) Understand the scale and scope of trafficking.
- (2) Create a data-driven plan for allocating resources to prevention, intervention, and survivor services.
- (3) Strengthen collaboration between county agencies, community organizations, and survivor-led programs.

COST

By looking at the cost of comparable studies, such as *Looking for a Hidden Population: Trafficking of Migrant Laborers in San Diego County (2012 ³ and The Nature and Extent of Gang Involvement in Sex Trafficking in San Diego County(2016), ⁴ it is estimated that a county-wide prevalence study focusing on both sex and labor trafficking would cost approximately \$1.5 million and take about 3 years to complete. These earlier studies were \$400,000 and 500,000 respectively, with San Diego's population in 2010 approximately 3 million. For the City of Los Angeles, the estimated cost would be approximately \$1 million, with a similar 3-year timeline. The higher estimated cost for Los Angeles is based on its larger population and the fact that the study would capture data on both sex and labor trafficking rather than one form alone.*

³ Looking for a Hidden Population: Trafficking of Migrant Laborers in San Diego County

⁴ The Nature and Extent of Gang Involvement in Sex Trafficking in San Diego County

Geographic Location	Year 1 Cost	Year 2 Cost	Year 3 Cost	Total
District 1	\$21,426	\$21,426	\$21,426	\$64,277
District 2	\$22,250	\$22,250	\$22,250	\$66,749
District 3	\$22,662	\$22,662	\$22,662	\$67,985
District 4	\$21,838	\$21,838	\$21,838	\$65,513
District 5	\$23,074	\$23,074	\$23,074	\$69,221
District 6	\$22,662	\$22,662	\$22,662	\$67,985
District 7	\$22,250	\$22,250	\$22,250	\$66,749
District 8	\$21,426	\$21,426	\$21,426	\$64,277
District 9	\$21,014	\$21,014	\$21,014	\$63,041
District 10	\$21,838	\$21,838	\$21,838	\$65,513
District 11	\$23,486	\$23,486	\$23,486	\$70,457
District 12	\$22,662	\$22,662	\$22,662	\$67,985
District 13	\$21,426	\$21,426	\$21,426	\$64,277
District 14	\$22,250	\$22,250	\$22,250	\$66,749
District 15	\$23,074	\$23,074	\$23,074	\$69,221
Citywide Total	\$333,338	\$333,338	\$333,338	\$999,999

CONCLUSION

A comprehensive prevalence study represents more than just a research effort. It is an investment in prevention, systems change, and survivor-centered support. With accurate, localized data, Los Angeles can move from responding to individual cases toward addressing systemic patterns of exploitation. The findings would guide smarter funding decisions, strengthen cross-agency coordination, and ensure that both the City and County are equipped to protect those most at risk.

By committing to this effort, Los Angeles has the opportunity to lead the state in building an evidence-based and survivor-informed model for understanding and preventing human trafficking. This model could ultimately serve as a blueprint for California and beyond.

ABOUT SJI

The Sunita Jain Anti-Trafficking Initiative ("SJI") is an evidence-based, community-informed think tank that intentionally fills gaps in human trafficking through an intersectional framework that fosters systemic change and progressive policy innovations.

SUNITA JAIN ANTI-TRAFFICKING INITIATIVE



Paloma Bustos, MSW
Policy Associate
Sunita Jain Anti-Trafficking Initiative
919 Albany St
Los Angeles, CA 90015
paloma.bustos@lls.edu



APPENDIX A

HUMAN TRAFFICKING SUMMARY

Table 1: Experience of Violence/Abuse Summary						
	2019	2020	2022	2023	2024	
Total Surveys	3,931	3,873	3,887	3,473	4,081	
Any Experience of Human Trafficking	0	43	69	66	131	
Other Experience of Violence (Excluding HT)	1,650	1,112	1,138	1,116	1,487	
None/Decline/Don't Know	2,212	1,448	1,369	1,350	1,482	
No Response/NA	69	1,270	1,311	941	981	

	2019	2020	2022	2023	2024
Any Experience of Human Trafficking (<i>Alone or with other violence</i>)	NA	43	69	66	131
Any Experience of Human Trafficking (With other violence)*	NA	41	62	64	125
Neglect by parent, guardian, or other relative	NA	31	34	37	65
Physical abuse by parent, guardian, or other relative	NA	34	31	36	60
Sexual abuse by parent, guardian, or other relative	NA	16	21	24	38
Physical abuse by intimate partner or spouse	NA	33	38	45	80
Sexual abuse by intimate partner or spouse	NA	24	26	24	56
Physical abuse by someone else while unsheltered	NA	31	43	47	86
Sexual abuse by someone else while unsheltered	NA	29	35	38	69
Dating violence	NA	30	37	50	73
Stalking	NA	34	44	54	96
Any Sexual Abuse	NA	36	46	46	88

Table 3: Gender of Respondents with Human Trafficking Experience*

	2019	2020	2022	2023	2024
Man (or boy, if child)	NA	11	23	28	60
Woman (or girl, if child)	NA	30	43	38	70
Transgender	NA	2	4	1	3
Non-Binary/Gender Non-Conforming/A gender that is not singularly 'Female' or 'Male'	NA	0	3	2	1
Different Identity	NA	0	0	0	0
Questioning	NA	0	0	0	0
Culturally Specific Identity (e.g. Two-Spirit)	NA	0	0	0	0
Declined/Don't Know	NA	1	0	0	0
*Respondents may identify with more than one gender and therefor	e may be reco	rded in mult	iple gender	categories.	

Table 4: Race and Ethnicity of Respondents with Human Trafficking Experience*					
	2019	2020	2022	2023	2024
American Indian, Alaskan Native, or Indigenous	NA	3	7	4	11
Asian or Asian American	NA	4	4	0	5
Black, African American, or African	NA	14	21	18	34
Hispanic/Latina/e/o	NA	12	24	18	42
Middle Eastern or North African	NA	0	0	0	0
Native Hawaiian or Other Pacific Islander	NA	0	1	0	2
White	NA	15	24	26	42
Other	NA	2	5	7	10
Declined/Don't Know	NA	3	5	14	7
*Respondents may identify with more than one race/ethnicity and t	herefore may	be recorde	d in multiple	e categories.	•

Table 5: Sexual Orientation of Respondents with Human Trafficking Experience							
	2019	2020	2022	2023	2024		
Straight	NA	26	48	49	106		
Gay	NA	4	4	0	2		
Lesbian	NA	1	0	0	3		
Bisexual	NA	7	17	14	14		
Unsure	NA	1	0	0	2		
Other	NA	2	0	1	1		
Declined/Don't Know	NA	2	0	2	3		

Table 6: Age Group of Respondents with Human Trafficking Experience							
	2019	2020	2022	2023	2024		
25-34	NA	11	24	17	35		
35-44	NA	17	20	15	45		
45-54	NA	10	17	20	33		
55-59	NA	4	3	3	10		
60-61	NA	0	2	3	2		
62-64	NA	1	0	5	1		
65-69	NA	0	2	1	4		
70-79	NA	0	0	2	1		
80+	NA	0	1	0	0		

FORCED WORK SUMMARY

Table 1: Experience of Forced Work Summary	e 1: Experience of Forced Work Summary					
	2019	2020	2022	2023	2024	
Total Surveys	3931	3873	3887	3473	4081	
Forced to Work	627	442	693	438	709	
No/Don't Know/Decline	3266	3299	3052	2881	3082	
No Response/NA	38	132	142	154	290	

Table 2: Type of Forced Work Summary					
	2019	2020	2022	2023	2024
Forced to Work	627	442	693	438	709
Sex Work Only	0	22	20	8	14
Sex Work in Combination with Other Types	30	2	0	4	6
Multiple Types (non sex work)	33	25	0	14	47
Agricultural work	46	55	49	19	42
Door-to-door sales	14	5	12	6	8
Household/childcare work	37	21	44	27	42
Panhandling	25	6	7	1	NA
Restaurant/catering work	38	48	60	39	53
Illegal goods sales	0	0	13	0	0
Construction	NA	NA	NA	NA	186
Other	384	228	425	264	268
Declined/Don't Know	19	30	63	56	43
No Response	1	0	0	0	0

	2019	2020	2022	2023	2024
Man (or boy, if child)	622	438	679	437	696
Woman (or girl, if child)	164	112	134	108	146
Transgender	13	18	21	8	12
Non-Binary/Gender Non-Conforming/A gender that is not singularly 'Female' or 'Male'	0	0	13	4	7
Different Identity	0	0	0	0	1
Questioning	0	0	2	0	1
Culturally Specific Identity (e.g. Two-Spirit)	0	0	0	0	2
Unknown/Declined	0	3	2	1	3

Table 4: Race and Ethnicity of Respondents with Experience of Forced Work*						
	2019	2020	2022	2023	2024	
American Indian, Alaskan Native, or Indigenous	0	19	46	33	43	
Asian or Asian American	0	14	17	12	15	
Black, African American, or African	0	139	229	114	180	
Hispanic/Latina/e/o	0	150	255	175	296	
Middle Eastern or North African	0	0	0	0	2	
Native Hawaiian or Other Pacific Islander	0	1	3	3	3	
White	244	140	198	145	213	
Other	0	34	28	76	36	
Declined/Don't Know	0	13	27	97	17	
*Respondents may identify with more than one race/ethnicity and therefore may be recorded in multiple categories.						

Table 5: Sexual Orientation of Respondents with Experience of Forced Work*						
	2019	2020	2022	2023	2024	
Straight	562	398	611	391	644	
Gay	11	10	20	9	10	
Lesbian	5	6	1	1	2	
Bisexual	28	19	42	23	29	
Unsure	7	2	12	3	7	
Other	4	2	0	3	7	
Declined/Don't Know	9	5	7	8	10	

Table 6: Age Group of Respondents with Experience of Forced Work*							
	2019	2020	2022	2023	2024		
25-34	150	84	151	83	147		
35-44	157	122	195	129	203		
45-54	188	116	181	111	189		
55-59	79	59	65	46	70		
60-61	10	19	28	19	32		
62-64	24	21	35	23	34		
65-69	16	17	30	20	23		
70-79	3	4	6	7	10		
80+	NA	NA	2	NA	1		

Table 6: SPA (Service Planning Area) of Respondents with Experience of Forced Work*						
	2019	2020	2022	2023	2024	
SPA 1	14	8	2	10	27	
SPA 2	103	75	81	52	120	
SPA 3	42	28	21	19	42	
SPA 4	157	136	298	146	172	
SPA 5	138	81	121	60	121	
SPA 6	72	65	103	88	145	
SPA 7	46	24	26	27	42	
SPA 8	55	25	41	36	40	
*The location reported is the location of where the survey is administered.						

Table 7: Details of Other Forced Work Category						
	2019	2020	2022	2023	2024	
Assistant	NA	2	2	2	6	
Car, Auto, Bike Work	NA	17	38	21	35	
Carework	NA	0	1	0	1	
Cleaning And Maintenance	NA	6	17	13	19	
Clothing	NA	1	2	2	5	
Construction	NA	56	99	61	0	
Cosmetology	NA	1	1	1	1	
Delivery	NA	0	2	4	6	
Electrician	NA	1	2	1	1	
Field Work	NA	1	2	3	0	
Food Services	NA	1	6	1	5	
Gas Station	NA	2	2	2	2	
Handywork	NA	4	6	7	1	
Hotel Motel	NA	3	1	1	2	
Labor	NA	24	33	19	24	
Landscape	NA	2	13	8	5	
Manufacturing	NA	2	9	3	1	
Moving	NA	1	6	1	5	
Office Work	NA	1	4	1	6	
Painting	NA	2	5	2	3	
Prison	NA	5	28	8	6	
Recycling	NA	3	7	3	4	
Sales	NA	11	11	8	15	
Security	NA	5	7	6	10	
Telemarketing	NA	6	2	4	2	
Trucking	NA	2	7	0	5	
Warehouse Work	NA	12	22	17	17	
Other	NA	62	91	67	97	

HUMAN TRAFFICKING SUMMARY (2025)

Response	Count	Percent
No	3,043	71.05%
Yes	843	19.68%
Missing / No response	397	9.27%
Total Respondent	4,283	

FORCED WORK SUMMARY (2025)

Type of Forced Work	Yes	No	Percent Yes
Sex	23	779	2.87
Agri	57	745	7.11
Sales	21	781	2.62
Restaurant	78	724	9.73
Household Work	88	714	10.97
Illegal	14	788	1.75
Construction	224	578	27.93
Other	406	396	50.62

APPENDIX B

LOS ANGELES
HOMELESS
SERVICES
LAHSA

Admin Use Only

Ticket #: 234336 Analyst Initials: SMW Unit: D&R

Demographic Brief

Experiences of Human Trafficking and Sexual Abuse Among Persons
Experiencing Unsheltered Homelessness in the Los Angeles Continuum of Care
from the 2024 Greater Los Angeles Homeless Count

Request Date: April 22, 2024

Data Source (if applicable): 2024 Unsheltered Demographic Survey and PIT Count

Date completed: March 25, 2025

*If you have any questions or concerns please submit a ticket at https://lahsa.freshservice.com/support/home.

Results

Table 1a. Experiences of Human Trafficking Among Adults Experiencing Unsheltered Homelessness in the Los Angeles Continuum of Care, ^a 2024

Estimated Total Population							
		95% Confidence	Relative				
Category of PEH ^b	Number	Interval	Uncertainty	Percent			
All Unsheltered Adults, 18+ years of age	47,866	46,273 – 49,459	6.7%	100.0%			
Estimated Category Subpopula	tion of Adu	ılts, 18+ years of ag	e				
		95% Confidence	Relative				
Whether Reported Human Trafficking Experiences b	Number	Interval	Uncertainty	Percent			
No	38,635	33,694 – 43,575	25.6%	80.7%			
Yes	9,231	5,619 - 12,843	78.3%	19.3%			

Table 1b. Experiences of Human Trafficking Among Adults Experiencing Unsheltered Homelessness in the City of Los Angeles, 2024

Estimated Total Population							
		95% Confidence	Relative				
Category of PEH ^b	Number	Interval	Uncertainty	Percent			
All Unsheltered Adults, 18+ years of age	28,276	27,380 - 29,172	6.3%	100.0%			
Estimated Category Subpopulation of Adults, 18+ years of age							
	•	95% Confidence	Relative				
Whether Reported Human Trafficking Experiences ^b	Number	Interval	Uncertainty	Percent			
No	22,611	17,939 – 27,283	41.3%	80.0%			
Yes	5,665	2,692 - 8,639	105.0%	20.0%			

Table 2a. Experiences of Sexual Abuse Among Adults Experiencing Unsheltered Homelessness in the Los Angeles Continuum of Care, a 2024



Estimated Total Population					
		95% Confidence	Relative		
Category of PEH ^b	Number	Interval	Uncertainty	Percent	
All Unsheltered Adults, 18+ years of age	47,866	46,273 - 49,459	6.7%	100.0%	
Estimated Category Sub	population o	f Adults, 18+ years o	fage		
		95% Confidence	Relative		
Whether Reported Sexual Abuse b	Number	Interval	Uncertainty	Percent	
No	39,916	33,396 - 46,436	32.7%	83.4%	
Yes	7,950	4,752 - 11,148	80.5%	16.6%	

Table 2b. Experiences of Sexual Abuse Among Adults Experiencing Unsheltered Homelessness in the City of Los Angeles, 2024

Estimated Total Population					
Estim	acca rotarro	95% Confidence	Relative		
Category of PEH ^b	Number	Interval	Uncertainty	Percent	
All Unsheltered Adults, 18+ years of age	28,276	27,380 – 29,172	6.3%	100.0%	
Estimated Category Subpopulation of Adults, 18+ years of age					
		95% Confidence	Relative		
Whether Reported Sexual Abuse b	Number	Interval	Uncertainty	Percent	
No	23,425	17,230 - 29,621	52.9%	82.8%	
Yes	4,851	2,229 - 7,472	108.1%	17.2%	

Source. Demographic Survey and PIT Count facets of the 2023 Greater Los Angeles Homeless Count. Notes. ^a The LA CoC does not include the Pasadena, Glendale, and Long Beach CoCs.

^b See Methodology for details.

^c Generally, estimates with Relative Uncertainty < 65% can be interpreted confidently; estimates where 65% ≤ Relative Uncertainty < 130% may need to be interpreted cautiously; and estimates with Relative Uncertainty ≥ 130% are not reported because their uncertainty is too great for reliable interpretation.





Demographic Brief

Experiences of Human Trafficking and Sexual Abuse Among Persons
Experiencing Unsheltered Homelessness in the Los Angeles Continuum of Care
from the 2023 Greater Los Angeles Homeless Count

Requested by: Anabel Martinez

Request Date: April 22, 2024

Data Source (if applicable): 2023 Unsheltered Demographic Survey and PIT Count

(HC2023 DemogTables 20230519.xlsx, HC2023 hhold elig.dta, and YC2023 hhold elig.dta)

Date completed: June 12, 2024

*If you have any questions or concerns please contact datasupport@lahsa.orq

Results

Table 1a. Experiences of Human Trafficking Among Adults Experiencing Unsheltered Homelessness in the Los Angeles Continuum of Care, a 2023

Estimated Total Population					
		95% Confidence	Relative		
Category of PEH ^b	Number	Interval	Uncertainty	Percent	
All Unsheltered Adults, 18+ years of age	50,477	48,917 - 52,037	6.2%	100.0	
Estimated Category Subpopulation of Adults, 18+ years of age					
		95% Confidence	Relative		
Whether Reported Human Trafficking Experiences ^b	Number	Interval	Uncertainty	Percent	
No	43,750	39,972 – 47,528	17.3%	86.7	
Yes	6,727	3,467 - 9,988	96.9%	13.3	

Table 1b. Experiences of Human Trafficking Among Adults Experiencing Unsheltered Homelessness in the City of Los Angeles, 2023

Estimated Total Population					
		95% Confidence	Relative		
Category of PEH ^b	Number	Interval	Uncertainty	Percent	
All Unsheltered Adults, 18+ years of age	31,623	30,940 - 32,306	4.3%	100.0	
Estimated Category Subpopulation of Adults, 18+ years of age					
		95% Confidence	Relative		
Whether Reported Human Trafficking Experiences b	Number	Interval	Uncertainty	Percent	
No	27,236	24,770 – 29,702	18.1%	86.1	
Yes	4,387	1,921 - 6,853	112.4%	13.9	



Table 2a. Experiences of Sexual Abuse Among Adults Experiencing Unsheltered Homelessness in the Los Angeles Continuum of Care, a 2023

Estimated Total Population					
		95% Confidence	Relative		
Category of PEH ^b	Number	Interval	Uncertainty ^c	Percent	
All Unsheltered Adults, 18+ years of age	50,477	48,917 - 52,037	6.2%	100.0	
Estimated Category Subpopulation of Adults, 18+ years of age					
		95% Confidence	Relative		
Whether Reported Sexual Abuse ^b	Number	Interval	Uncertainty	Percent	
No	45,074	40,539 - 49,610	20.1%	89.3	
Yes	c	c	167.9%	10.7	

Table 2b. Experiences of Sexual Abuse Among Adults Experiencing Unsheltered Homelessness in the City of Los Angeles, 2023

Estimated Total Population					
		95% Confidence	Relative		
Category of PEH ^b	Number	Interval	Uncertainty	Percent	
All Unsheltered Adults, 18+ years of age	31,623	30,940 - 32,306	4.3%	100.0	
Estimated Category Subpopulation of Adults, 18+ years of age					
		95% Confidence	Relative		
Whether Reported Sexual Abuse ^b	Number	Interval	Uncertainty	Percent	
No	27,782	24,406 - 31,159	24.3%	87.9	
Yes	c	c	175.8%	12.1	

Source. Demographic Survey and PIT Count facets of the 2023 Greater Los Angeles Homeless Count. Notes.

The LA CoC does not include the Pasadena, Glendale, and Long Beach CoCs.

^b See Methodology for details.

 $[^]c$ Generally, estimates with Relative Uncertainty < 65% can be interpreted confidently; estimates where 65% \leq Relative Uncertainty < 130% may need to be interpreted cautiously; and estimates with Relative Uncertainty \geq 130% are not reported because their uncertainty is too great for reliable interpretation.