Causal Models

Kenneth Lai[1,2] and Svetlana Yanushkevich[1]

[1]Biometric Technologies Laboratory, Department of Electrical and Software Engineering, University of Calgary, Canada
[2]Department of Clinical Neurosciences, Cumming School of Medicine, University of Calgary, Canada
Email: {kelai, syanshk}@ucalgary.ca

Abstract—

*Index Terms—***Migration, Forecasting, Deep Learning, Machine Reasoning, Bayesian Networks.**
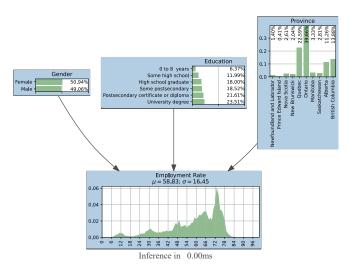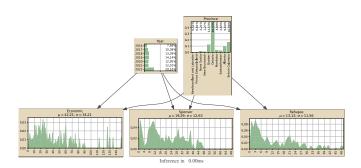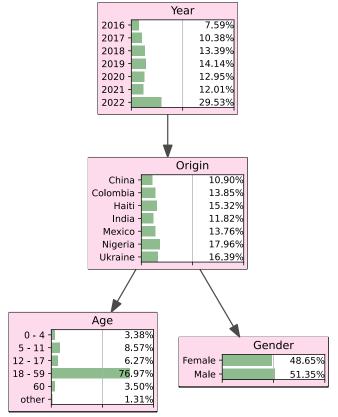
I. INTRODUCTION

REFERENCES

Fig. 1

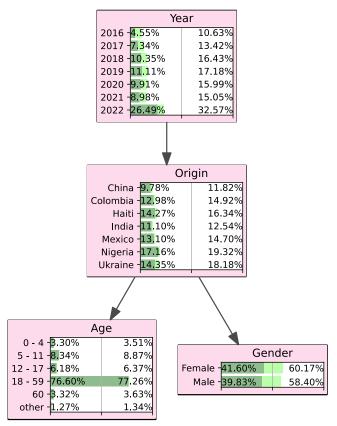Fig. 2

II. DISCUSSION AND CONCLUSION

Acknowledgment

Year

Year		Value
2016		7.59%
2017		10.38%
2018		13.39%
2019		14.14%
2020		12.95%
2021		12.01%
2022		29.53%

Origin

Origin	Value
China	10.90%
Colombia	13.85%
Haiti	15.32%
India	11.82%
Mexico	13.76%
Nigeria	17.96%
Ukraine	16.39%

Age

Age	Value
0 - 4	3.38%
5 - 11	8.57%
12 - 17	6.27%
18 - 59	76.97%
60	3.50%
other	1.31%

Gender

Gender	Value
Female	48.65%
Male	51.35%

Inference in   0.00ms

Year

Year		
2016	4.55%	10.63%
2017	7.34%	13.42%
2018	10.35%	16.43%
2019	11.11%	17.18%
2020	9.91%	15.99%
2021	8.98%	15.05%
2022	26.49%	32.57%

Origin

Origin		
China	9.78%	11.82%
Colombia	12.98%	14.92%
Haiti	14.27%	16.34%
India	11.10%	12.54%
Mexico	13.10%	14.70%
Nigeria	17.16%	19.32%
Ukraine	14.35%	18.18%

Age

Age		
0 - 4	3.30%	3.51%
5 - 11	8.34%	8.87%
12 - 17	6.18%	6.37%
18 - 59	76.60%	77.26%
60	3.32%	3.63%
other	1.27%	1.34%

Gender

Gender		
Female	41.60%	60.17%
Male	39.83%	58.40%

Inference in 61.00ms

Fig. 3

Year
2016	7.59%
2017	10.38%
2018	13.39%
2019	14.14%
2020	12.95%
2021	12.01%
2022	29.53%

Origin
China	10.90%
Colombia	13.85%
Haiti	15.32%
India	11.82%
Mexico	13.76%
Nigeria	17.96%
Ukraine	16.39%

Education
0 to 8 years	6.37%
Some high school	11.99%
High school graduate	18.00%
Some postsecondary	18.52%
Postsecondary certificate or diploma	21.61%
University degree	23.51%

Gender
Female	48.65%
Male	51.35%

Age
0 – 4	3.38%
5 – 11	8.57%
12 – 17	6.27%
18 – 59	76.97%
60	3.50%
other	1.31%

Province

0.47% Newfoundland and Labrador; 0.67% Prince Edward Island; 1.95% Nova Scotia; 1.39% New Brunswick; 14.84% Quebec; 40.05% Ontario; 4.83% Manitoba; 4.09% Saskatchewan; 12.82% Alberta; 14.89% British Columbia

Employment Rate
$\mu = 58{,}90; \sigma = 16{,}51$

Economic
$\mu = 40{,}54; \sigma = 34{,}38$

Sponsor
$\mu = 18{,}04; \sigma = 12{,}61$

Refugee
$\mu = 12{,}39; \sigma = 11{,}46$

Inference in 1.00ms

Fig. 4