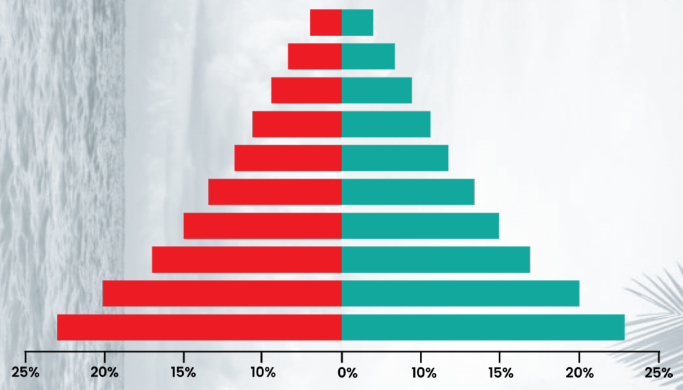
Vanuatu Bureau of Statistics
Bureau des Statistiques du Vanuatu



Population Projection, Vanuatu: 2025-2050

INPUTS, METHODS & RESULTS

Preliminary

Acknowledgement.

The successful compilation of the Vanuatu Population Projection 2025-2050 preliminary results was made possible through the dedicated efforts and collaborative support of many individuals and
organizations.
I would like to extend my deepest gratitude to the Pacific Community (SPC) for their invaluable contribution to this project. Their expertise, guidance, and technical assistance were instrumental in ensuring the accuracy and reliability of the projections.
Special thanks are due to the SPC demographic and statistical team for their hard work and commitment throughout the entire process. Their dedication to quality and precision in data analysis and projection has been exemplary.
My sincere appreciation also goes to the Vanuatu Bureau of Statistics (VBoS) staff for their diligent work in data collection, processing, and analysis. Their collaboration with SPC has been pivotal in producing these preliminary results.
Lastly, I would like to acknowledge the support and understanding of the people of Vanuatu, whose
participation and cooperation in various surveys and censuses have provided the foundation for these
population projections.
Thank you to everyone who contributed to the successful completion of this preliminary findings.

Purpose of having Population Projection.

- **Policy and Planning:** Governments and organizations use population projections to plan for future needs such as infrastructure, healthcare, education, and housing. Accurate projections help allocate resources effectively and develop long-term strategies.

- **Economic Forecasting:** Economists and businesses use population projections to predict labor force trends, consumer demand, and potential market sizes. This information is crucial for economic planning and investment decisions.

- **Environmental Planning:** Projections help in understanding the future impact of population growth or decline on natural resources, land use, and environmental sustainability. This aids in creating policies for conservation and sustainable development.

- **Social Services:** Projections inform the planning and provision of social services such as pensions, social security, and community support programs, ensuring that future needs can be met.

- **Public Health:** Health authorities use population projections to anticipate future healthcare needs, plan for epidemics, and ensure adequate healthcare infrastructure and workforce.

- **Urban and Regional Planning:** Planners use population projections to design cities and regions that can accommodate future growth, ensuring that development is sustainable and infrastructure is adequate.

- **Education:** Education planners use population projections to anticipate future school enrolment's, teacher requirements, and educational facilities, ensuring that educational services are aligned with future population needs.

- **Research and Analysis:** Demographers, sociologists, and other researchers use population projections to study trends and patterns in population growth, migration, aging, and other demographic factors.

PRELIMINARY summary Results: 2025-2030

Projection assumptions

Variants	Fertility	Mortality	Migration
1	Medium variant $TFR_{2020} = 3.8$ $TFR_{2030} = 3.1$	Medium variant $Life\ exp_{2020} = 72.69$ $Life\ exp_{2030} = 74.02$	Medium variant: annual net migration, 4500 (Average for pre-pandemic, 2013-2018)
2	Medium variant $TFR_{2020} = 3.8$ $TFR_{2030} = 3.1$	Medium variant $Life\ exp_{2020} = 72.69$ $Life\ exp_{2030} = 74.02$	High variant: annual net migration, 9000 (The highest observed net migration, 2013-2023)
3	Medium variant $TFR_{2020} = 3.8$ $TFR_{2030} = 3.1$	Medium variant $Life\ exp_{2020} = 72.69$ $Life\ exp_{2030} = 74.02$	Low variant: average annual net population loss (-1390) observed 2019-2022
4	Medium variant $TFR_{2020} = 3.8$ $TFR_{2030} = 3.1$	Medium variant $Life\ exp_{2020} = 72.69$ $Life\ exp_{2030} = 74.02$	ZERO NET MIGRATION

PRELIMINARY summary Results: 2025-2050

Variants	Assumptions	2025	2030	2050
1	Medium Fertility Medium Mortality Medium migration	345305	402820	451540
2	Medium Fertility Medium Mortality High migration variant	368966	450553	521665
3	Medium Fertility Medium Mortality Low migration variant	314329	340344	359754
4	Medium Fertility Medium Mortality Zero migration	321643	355088	381414

PRELIMINARY summary Results: 2024-2030, Variant 1

Variant 1:		Medium variant (annual net migration 4500, average for pre-pandemic excluding 2019-2022					
	2024	2025	2026	2027	2028	2029	2030
0-4	40276	40913	41550	42197	42854	43521	44226
5-9	39668	39958	40248	40540	40835	41131	41435
10-14	38476	38817	39158	39502	39848	40198	40559
15-19	31741	32834	33927	35057	36224	37429	38780
20-24	23664	24762	25860	27007	28204	29455	30909
25-29	26797	26738	26680	26622	26564	26506	26448
30-34	26487	27085	27682	28292	28916	29554	30242
35-39	21829	23011	24193	25436	26742	28116	29750
40-44	18588	19704	20821	22000	23247	24564	26158
45-49	16166	17040	17914	18832	19798	20813	22021
50-54	14764	15440	16116	16822	17559	18328	19219
55-60	11297	12062	12827	13640	14505	15425	16563
60-64	9054	9621	10189	10790	11426	12100	12922
65-69	6887	7315	7742	8194	8673	9180	9796
70-74	4376	4724	5072	5445	5846	6276	6826
75-79	2566	2766	2966	3180	3410	3657	3970
80-84	1433	1507	1581	1658	1739	1824	1924
85+	996	1008	1021	1034	1047	1060	1074
Total	334665	345305	355545	366248	377437	389138	402820

PRELIMINARY summary Results: 2024-2030, Variant 2

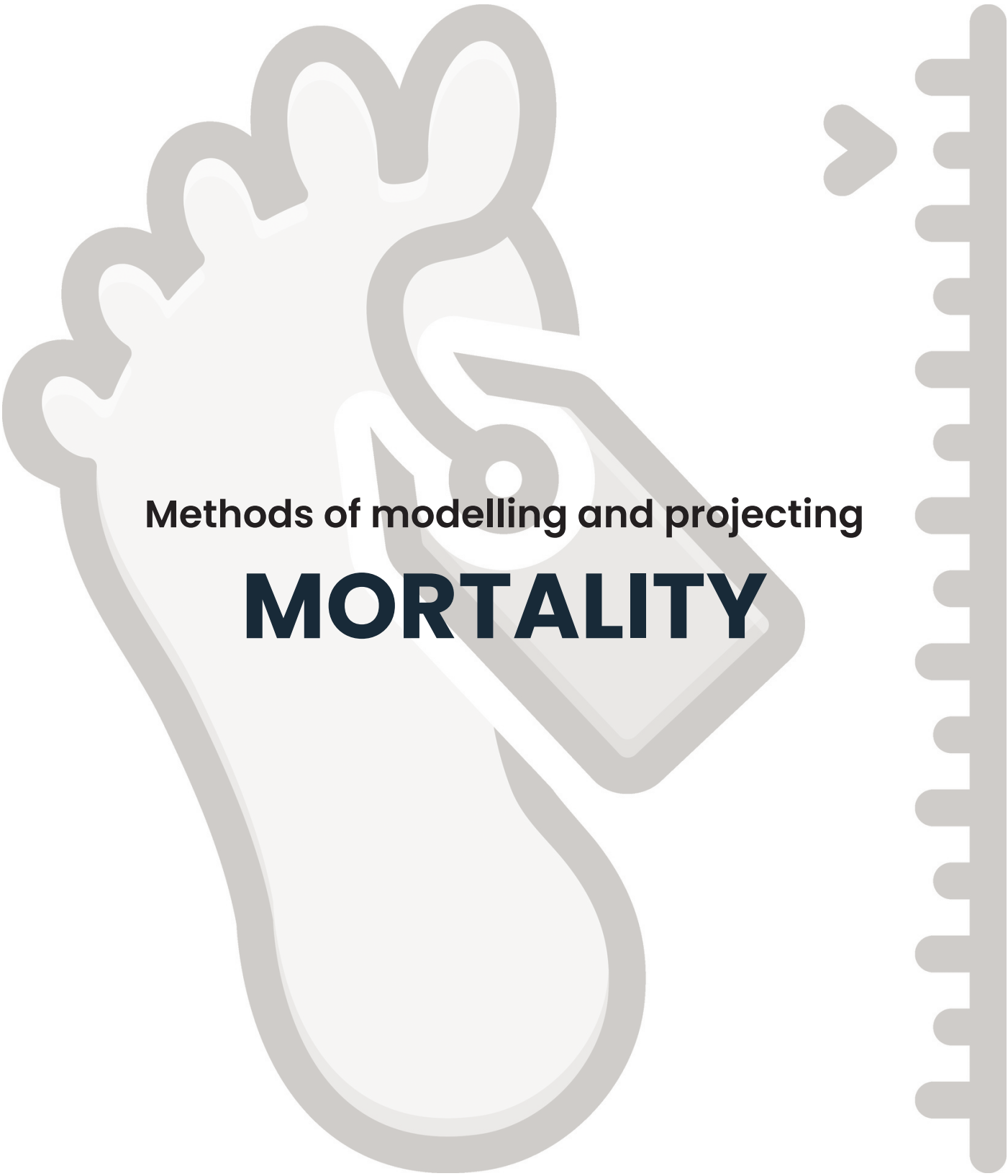
Variant 2:		High variant (average annual net positive migration 9000, maximum observed 2013-2023)					
	2024	2025	2026	2027	2028	2029	2030
0-4	41544	42440	43335	44249	45183	46136	47161
5-9	40347	40923	41500	42084	42677	43279	43910
10-14	38946	39469	39992	40523	41060	41604	42175
15-19	31679	32881	34084	35330	36622	37962	39478
20-24	21871	22968	24065	25214	26418	27680	29162
25-29	28972	28541	28110	27685	27267	26855	26465
30-34	29814	30732	31650	32595	33569	34571	35682
35-39	24123	25865	27608	29468	31453	33572	36225
40-44	21522	23082	24642	26308	28085	29984	32362
45-49	18272	19658	21044	22527	24115	25815	27965
50-54	16945	18030	19116	20267	21487	22781	24365
55-60	12637	13768	14899	16123	17447	18880	20761
60-64	10386	11200	12013	12886	13822	14826	16105
65-69	7757	8399	9041	9732	10477	11278	12310
70-74	4824	5303	5782	6305	6874	7495	8331
75-79	2810	3075	3339	3626	3939	4278	4728
80-84	1503	1608	1713	1825	1944	2071	2229
85+	1003	1024	1046	1068	1091	1114	1139
Total	354225	368966	382979	397816	413532	430182	450553

PRELIMINARY summary Results: 2024-2030, Variant 3

Variant 3:	Low variant (average annual net population loss -1390, the average observed post pandemic 2019-2022						
	2024	2025	2026	2027	2028	2029	2030
0-4	38626	38914	39203	39493	39786	40081	40383
5-9	38796	38695	38595	38494	38394	38294	38195
10-14	37868	37963	38059	38155	38251	38347	38444
15-19	31825	32772	33719	34694	35696	36728	37867
20-24	26011	27109	28207	29350	30538	31775	33194
25-29	23987	24380	24772	25172	25577	25990	26426
30-34	22152	22311	22470	22631	22792	22955	23122
35-39	18895	19275	19655	20043	20438	20842	21273
40-44	14776	15283	15789	16313	16854	17412	18038
45-49	13490	13613	13735	13859	13984	14110	14240
50-54	11965	12050	12135	12222	12308	12396	12485
55-60	9595	9828	10062	10301	10545	10796	11067
60-64	7332	7555	7778	8007	8243	8487	8756
65-69	5779	5895	6011	6130	6251	6374	6506
70-74	3806	3966	4127	4294	4467	4648	4856
75-79	2252	2362	2471	2586	2706	2832	2978
80-84	1346	1375	1404	1433	1463	1493	1526
85+	987	987	987	988	988	988	988
Total	309336	314334	319181	324162	329282	334546	340344

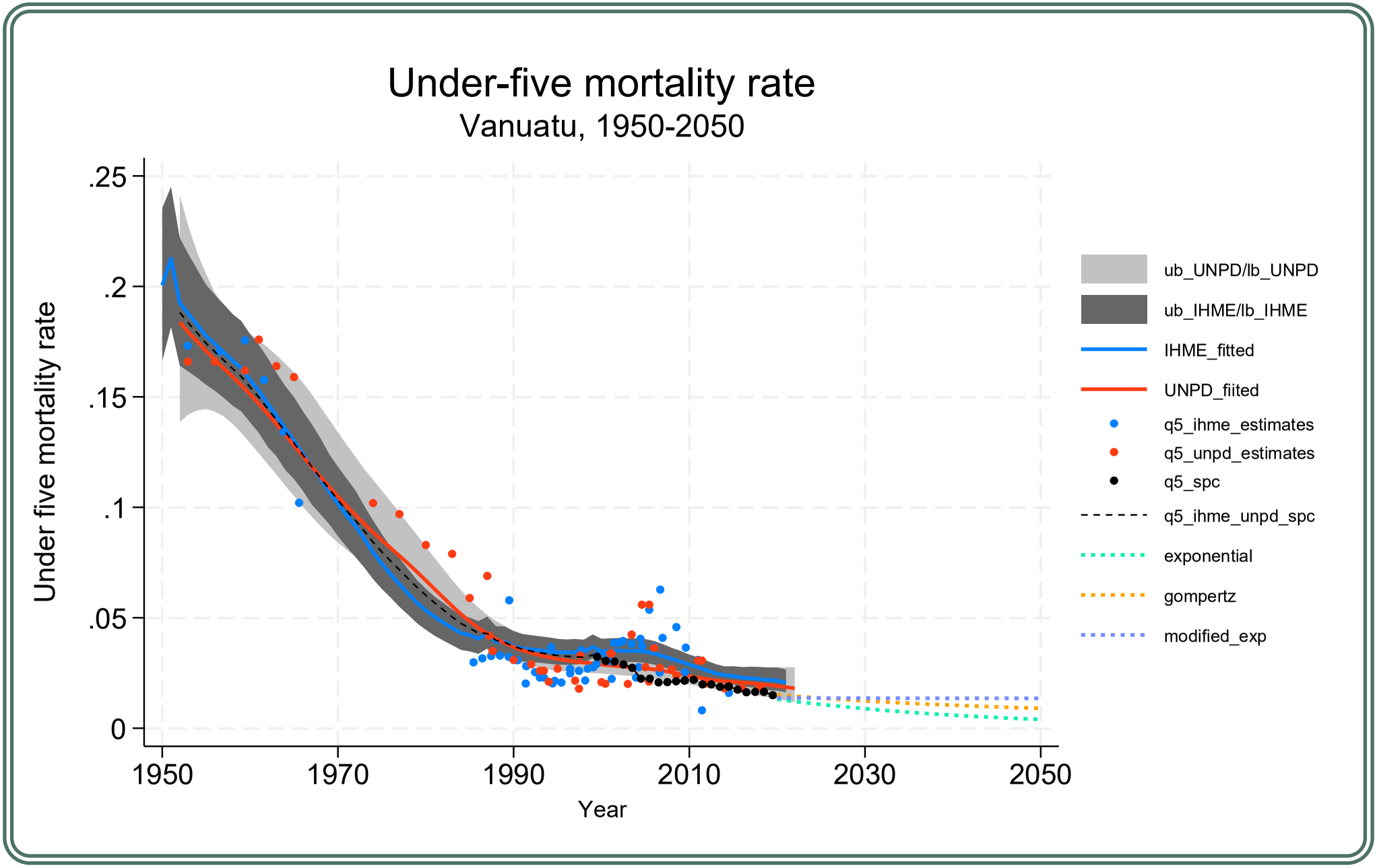
PRELIMINARY summary Results: 2024-2030, Variant 4

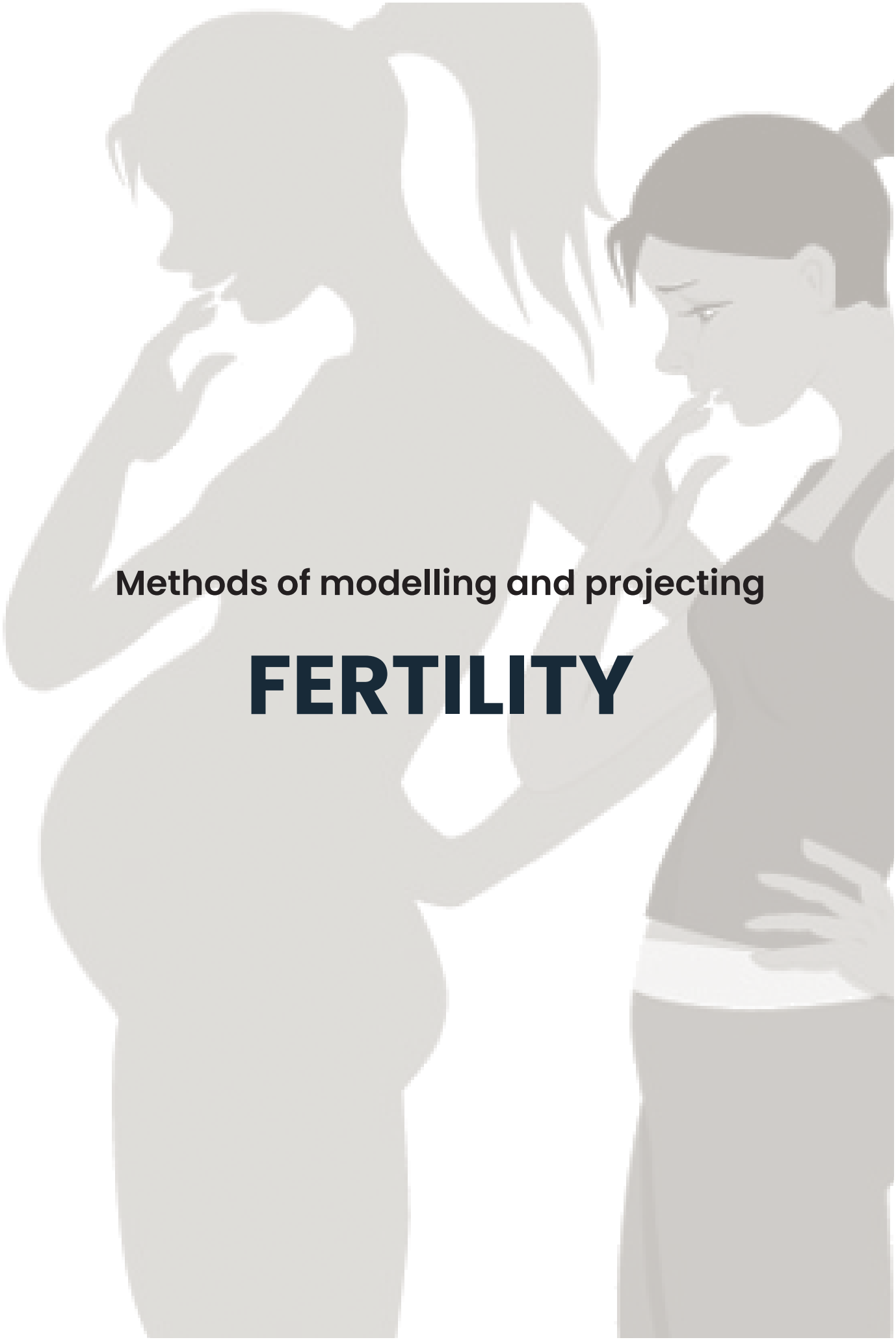
Variant 2:	No net migration						
	2024	2025	2026	2027	2028	2029	2030
0-4	39014	39386	39758	40133	40512	40895	41290
5-9	39000	38993	38987	38980	38973	38966	38960
10-14	38011	38165	38319	38474	38629	38785	38943
15-19	31805	32787	33769	34780	35821	36894	38082
20-24	25457	26555	27653	28797	29988	31228	32655
25-29	24646	24936	25227	25520	25817	26118	26431
30-34	23172	23438	23703	23971	24243	24517	24802
35-39	19577	20157	20736	21333	21946	22577	23274
40-44	15671	16326	16981	17663	18372	19109	19954
45-49	14108	14422	14735	15055	15382	15716	16076
50-54	12616	12850	13084	13322	13565	13811	14074
55-60	9988	10355	10723	11103	11497	11904	12364
60-64	7735	8043	8351	8670	9002	9346	9739
65-69	6036	6230	6425	6625	6832	7045	7282
70-74	3938	4145	4352	4569	4798	5037	5321
75-79	2325	2457	2589	2728	2874	3028	3213
80-84	1366	1406	1446	1487	1529	1572	1620
85+	989	992	995	999	1002	1005	1008
Total	315279	321643	327831	334208	340780	347554	355088



Methods of modelling and projecting

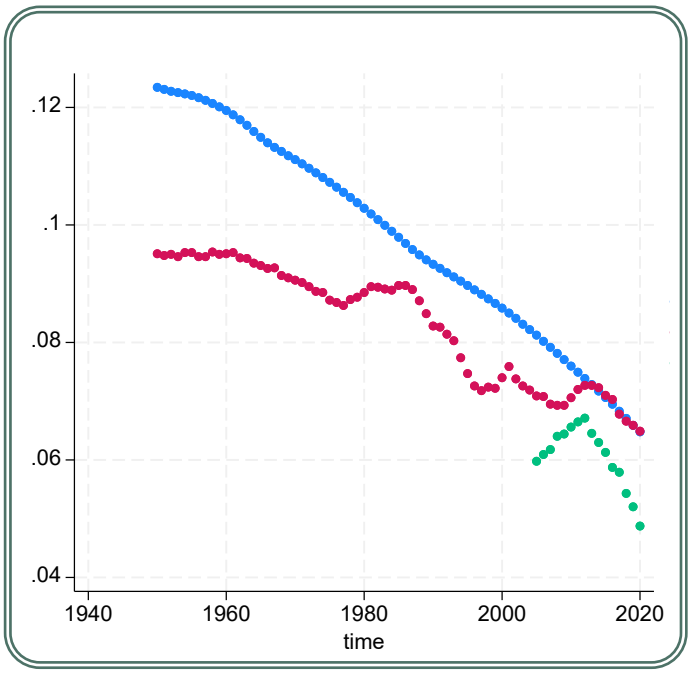
MORTALITY

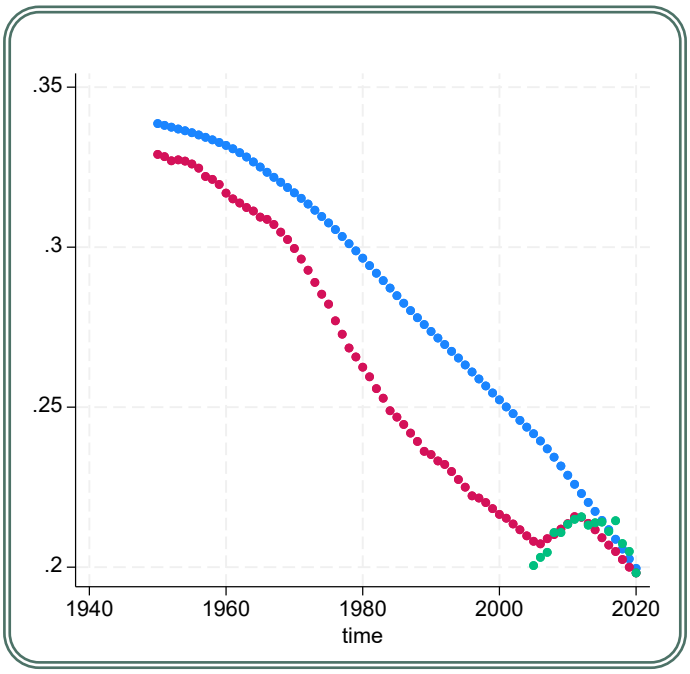

Under-five mortality rate
Vanuatu, 1950-2050
Under five mortality rate
.25
.2
.15
.1
.05
0
1950
1970
1990
2010
2030
2050
Year
ub_UNPD/lb_UNPD
ub_IHME/lb_IHME
IHME_fitted
UNPD_fiited
q5_ihme_estimates
q5_unpd_estimates
q5_spc
q5_ihme_unpd_spc
exponential
gompertz
modified_exp

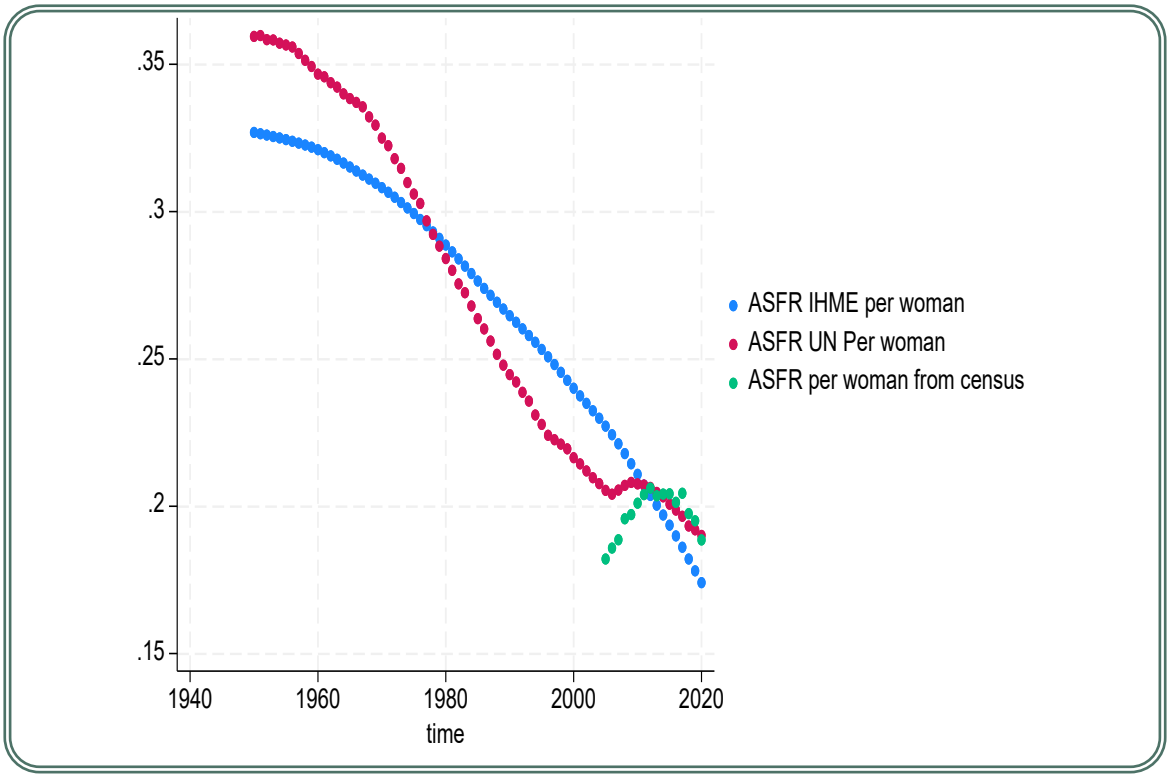


Methods of modelling and projecting

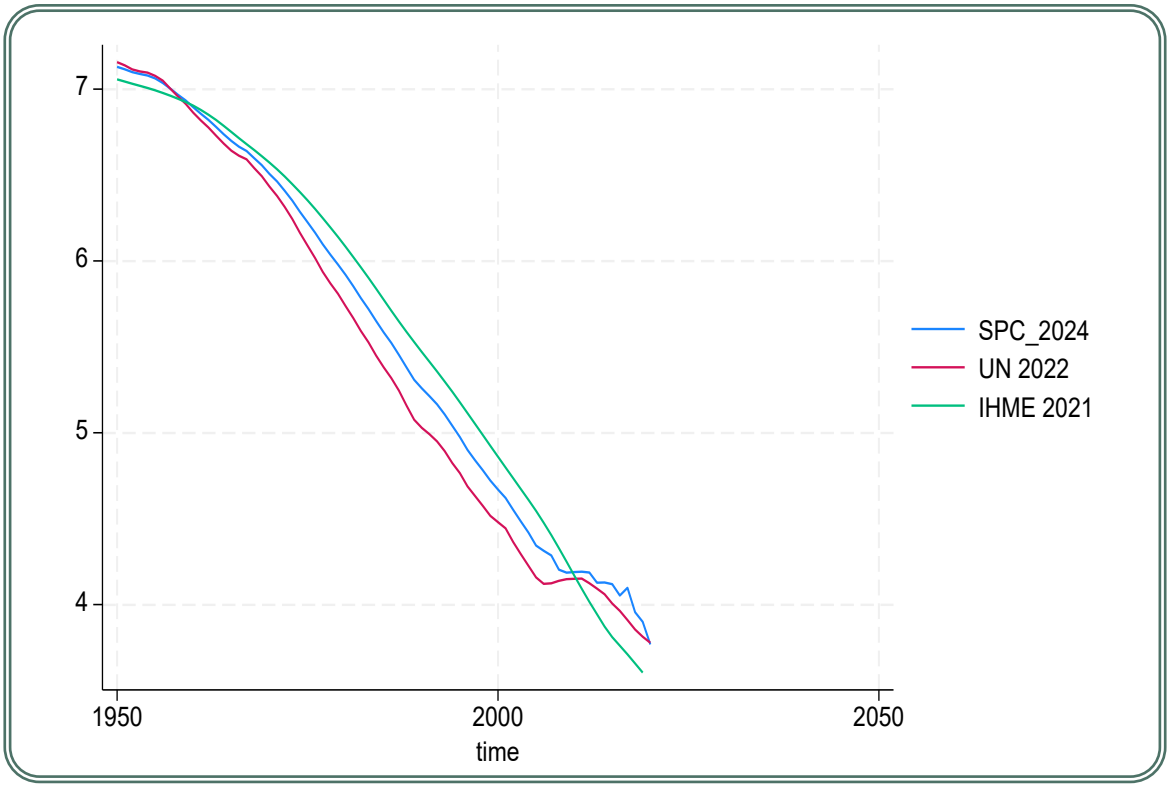
FERTILITY

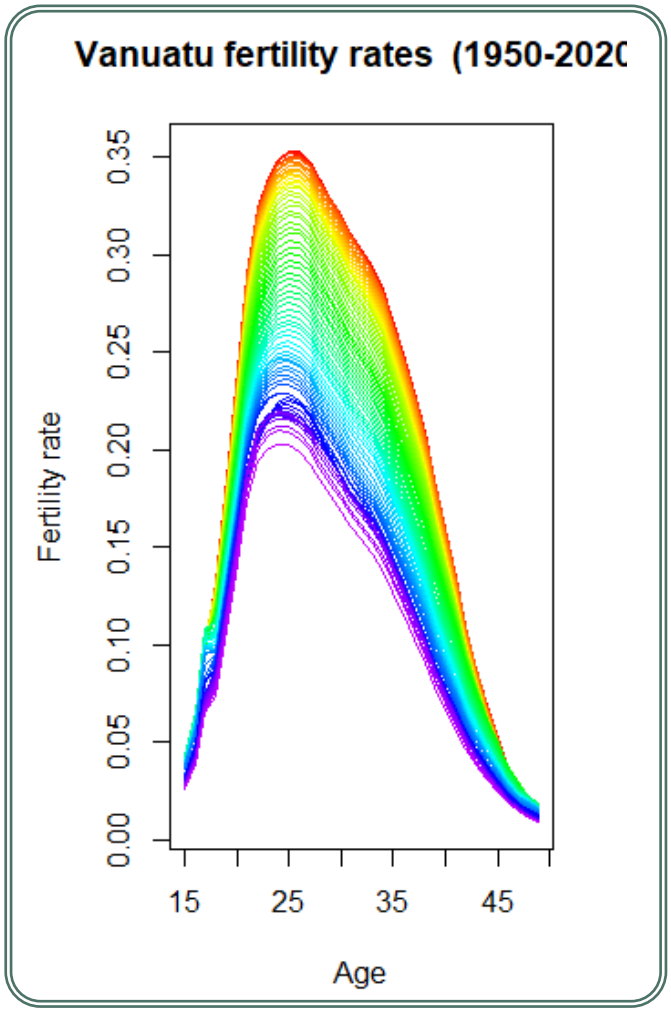


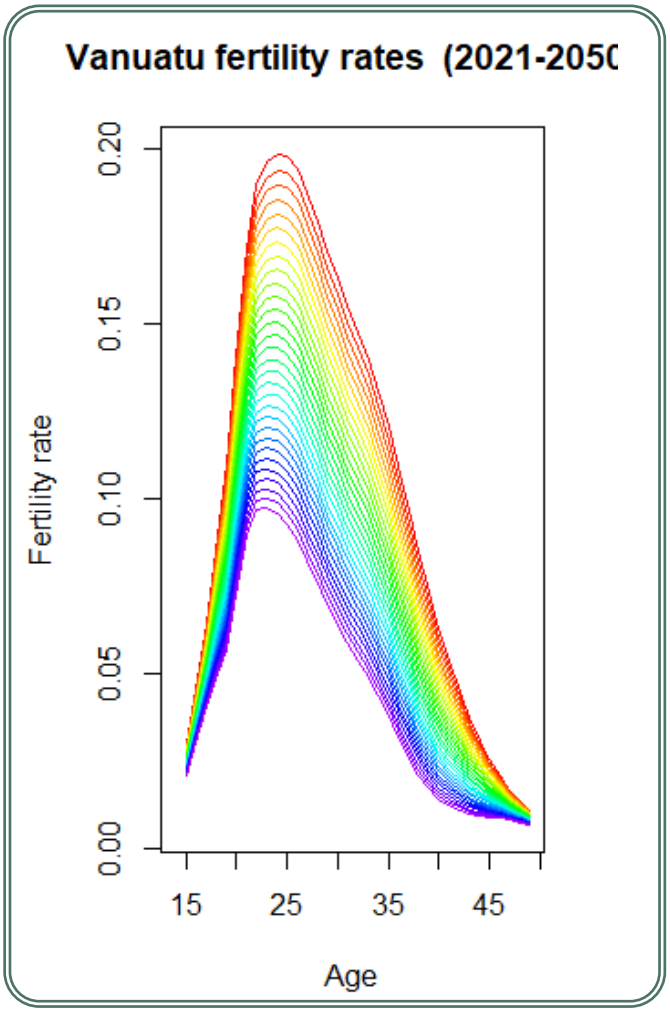


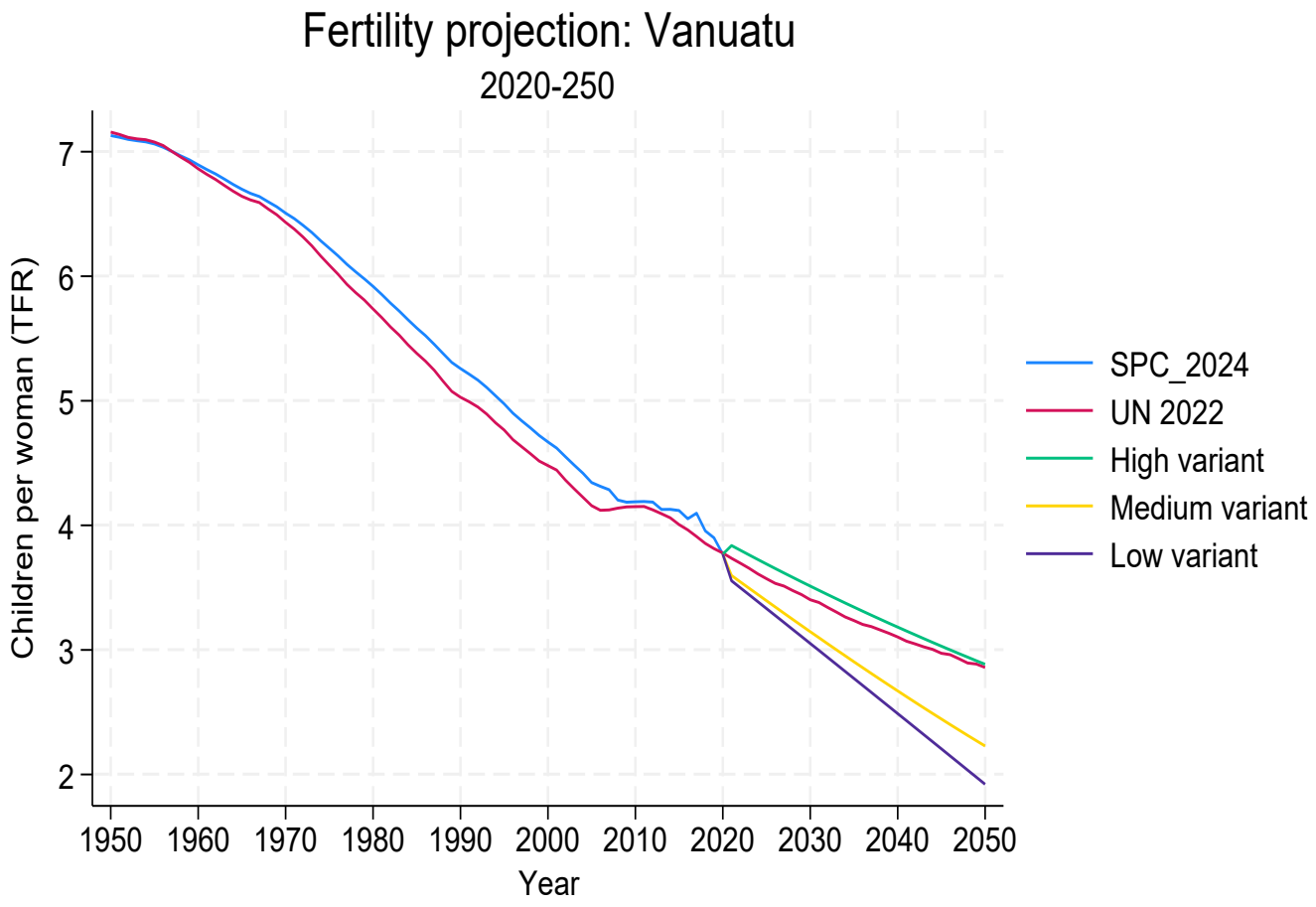


Age-specific fertility trends: selected age groups (15, 30, 25)

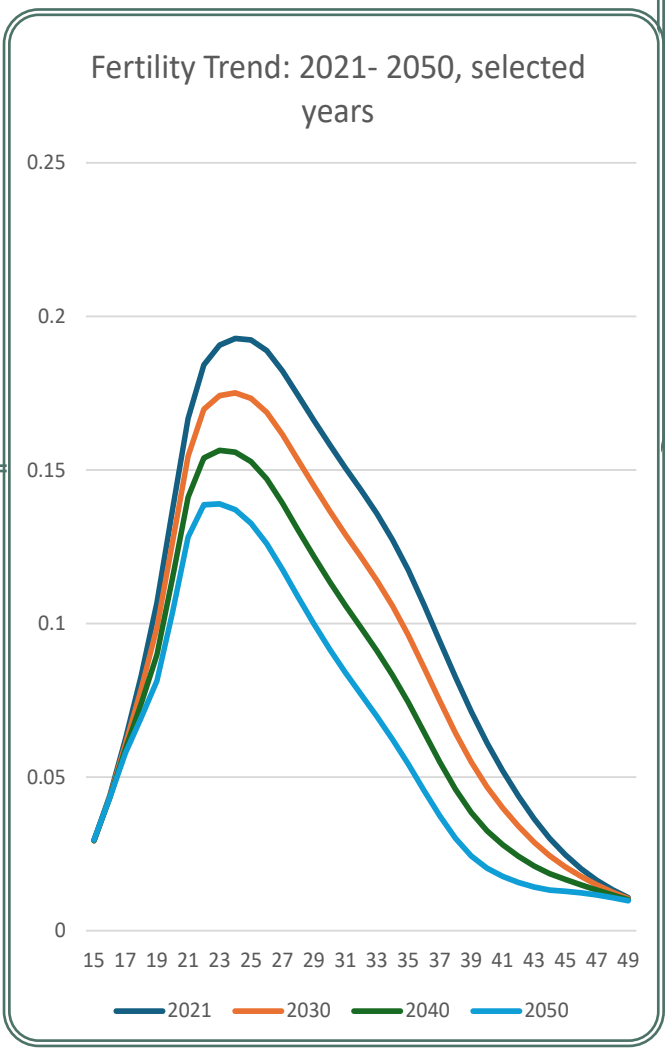

7
6
5
4
1950
2000
2050
time
SPC_2024
UN 2022
IHME 2021


Vanuatu fertility rates (1950-202
Fertility rate
0.00
0.05
0.10
0.15
0.20
0.25
0.30
0.35
15
25
35
45
Age


Vanuatu fertility rates (2021-205
Fertility rate
0.00
0.05
0.10
0.15
0.20
15
25
35
45
Age

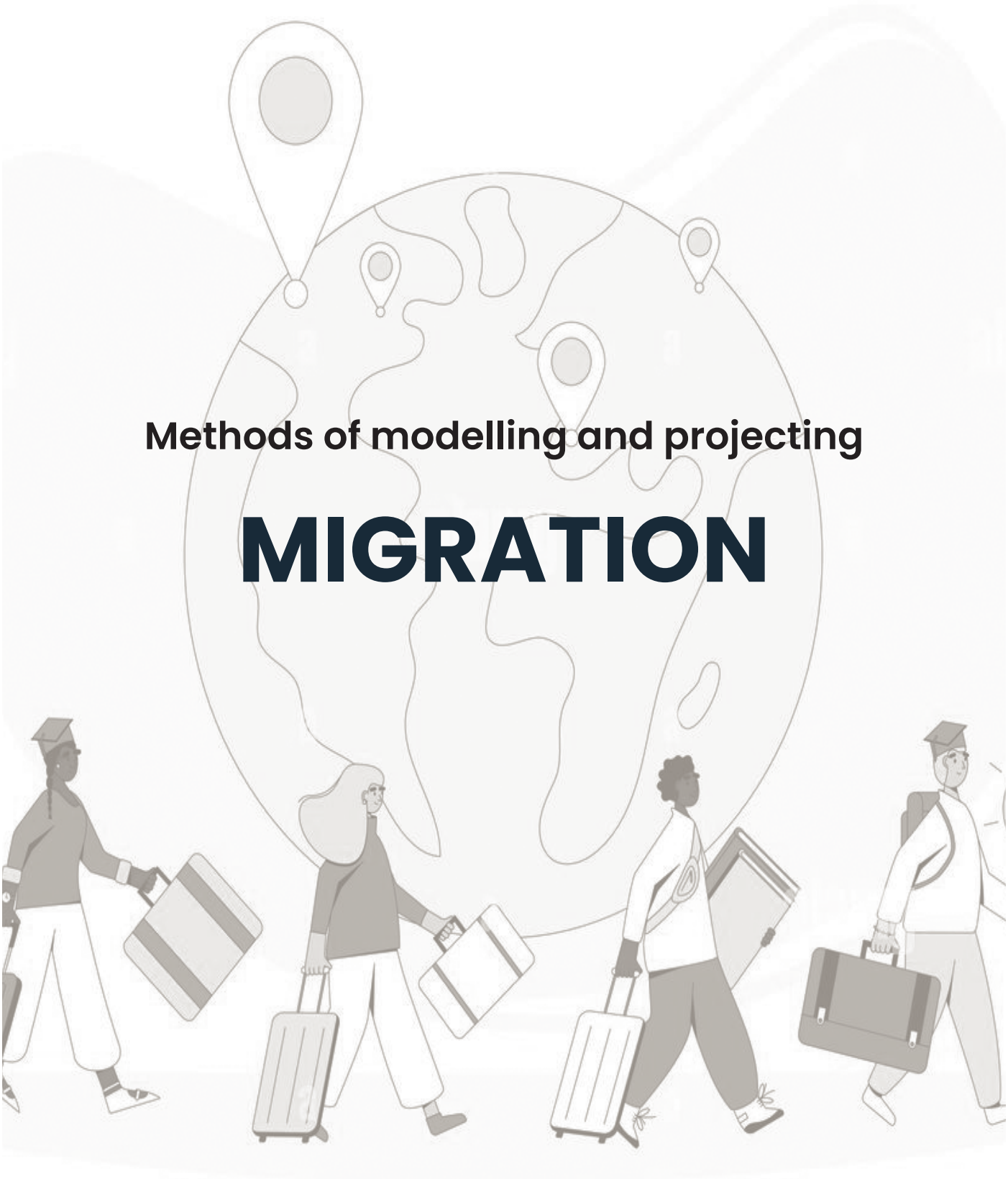


Country	TFR	
Vanuatu	**Start**	**End**
SPC - 2024 (Medium variant)	3.8	2.2
SPC - 2024 (Low variant)	3.8	1.9
SPC - 2024 (High variant)	3.8	2.9
SPC - 2019	3.6	2.3
UN - 2022	3.8	2.9
IHME - 2021	4.6	3.0



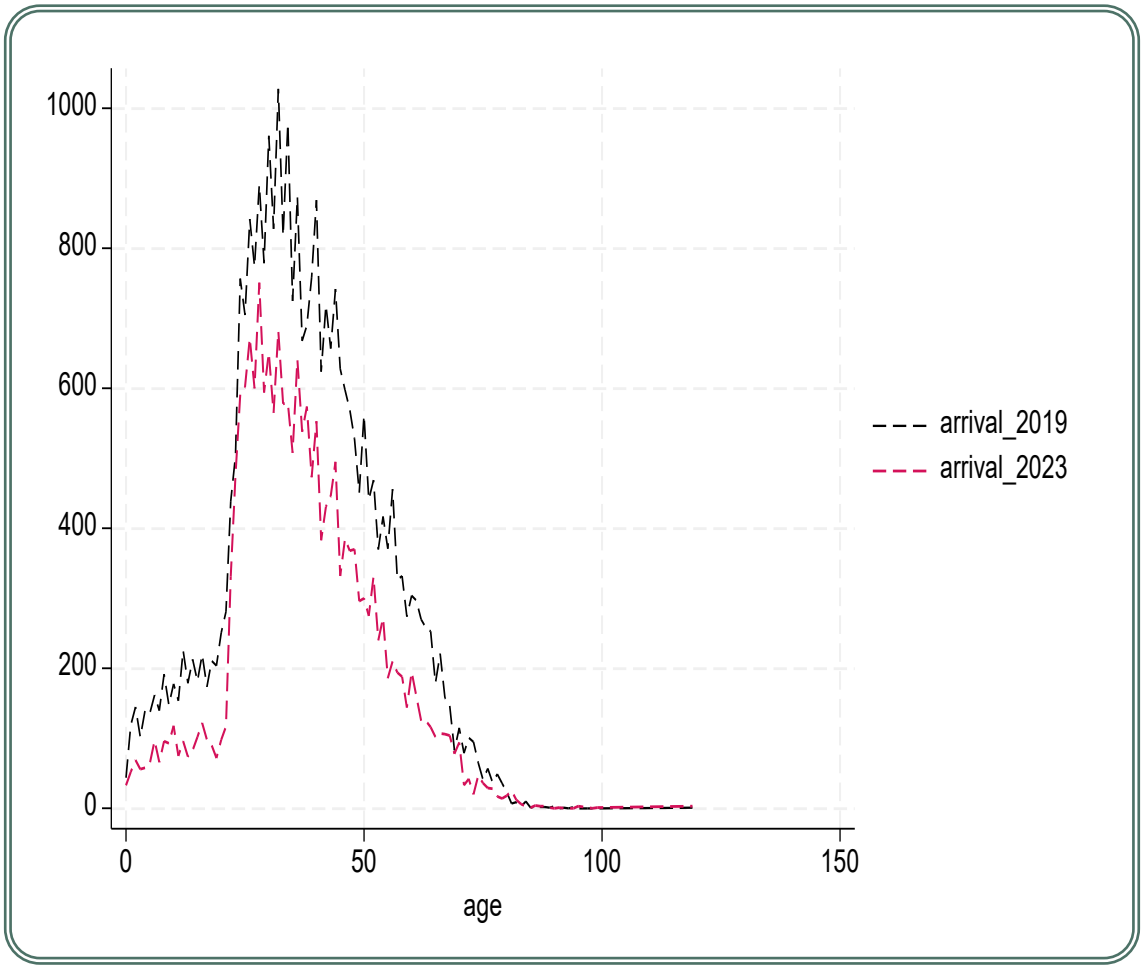
Methods of modelling and projecting

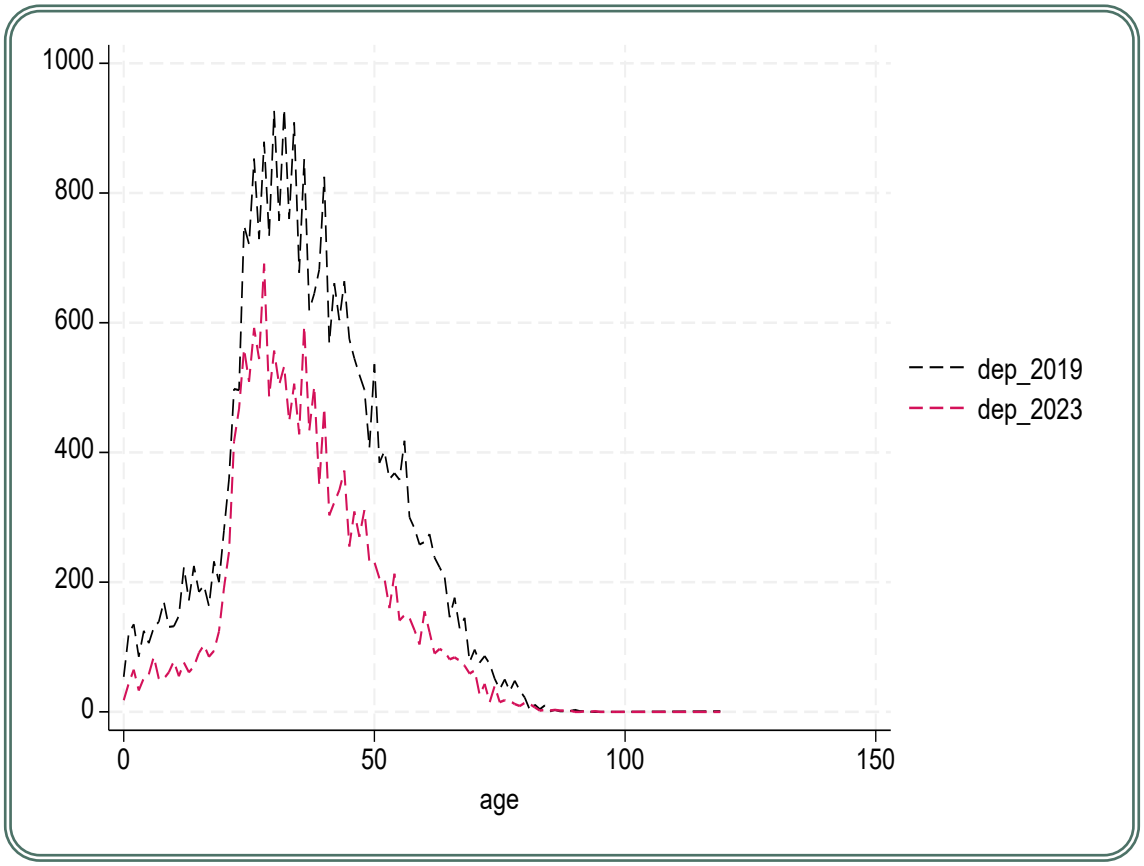
MIGRATION



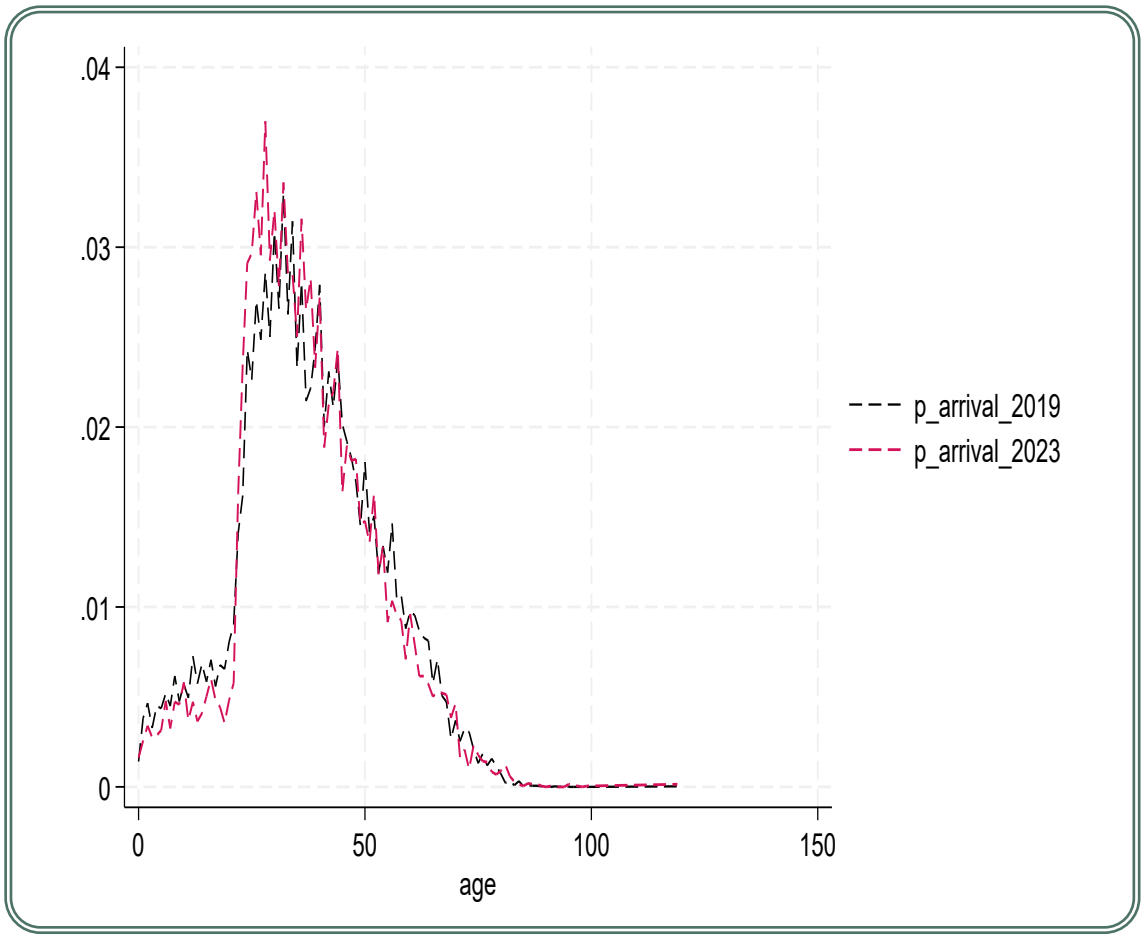
	Arrival	Departure	Net
2013	25,611	16,544	9,067
2014	25,884	19,080	6,804
2015	26,962	19,277	7,685
2016	25,160	20,283	4,877
2017	28,248	26,286	1,962
2018	28,936	28,391	545
2019	34,901	36,405	-1,504
2020	10,409	9,375	1,034
2021	3,495	8,964	-5,469
2022	18,547	18,172	375
2023	20,594	18,908	1,686
Average annual net migration			4660.857

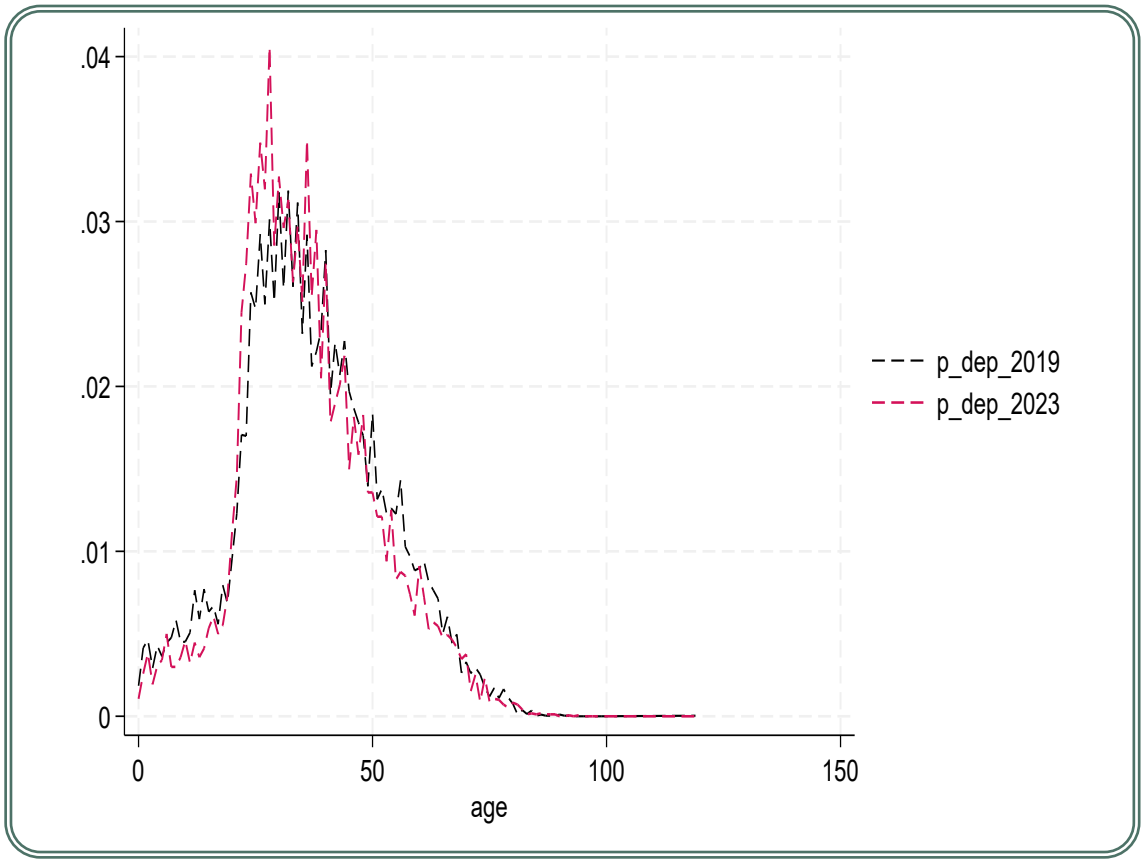
Reported annual migration flows



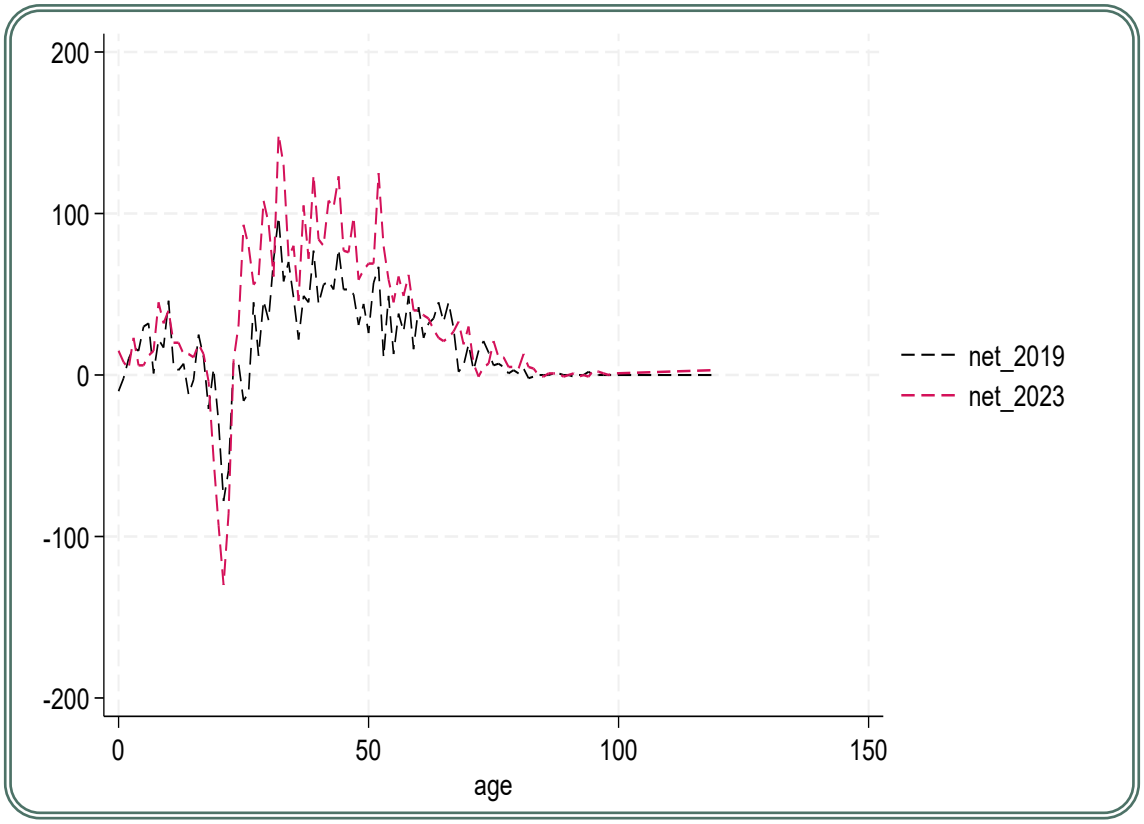


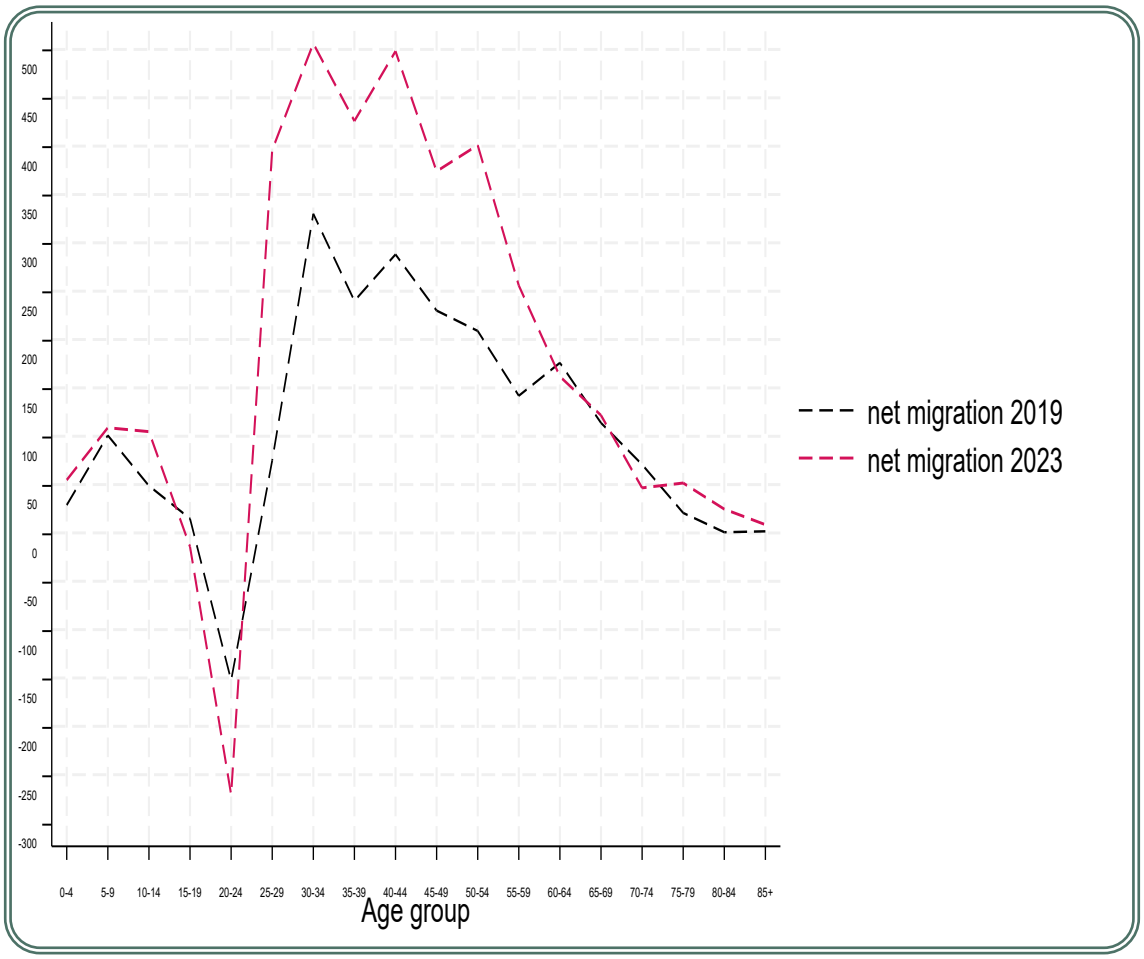
Age pattern of annual migration flows by volume and movement type



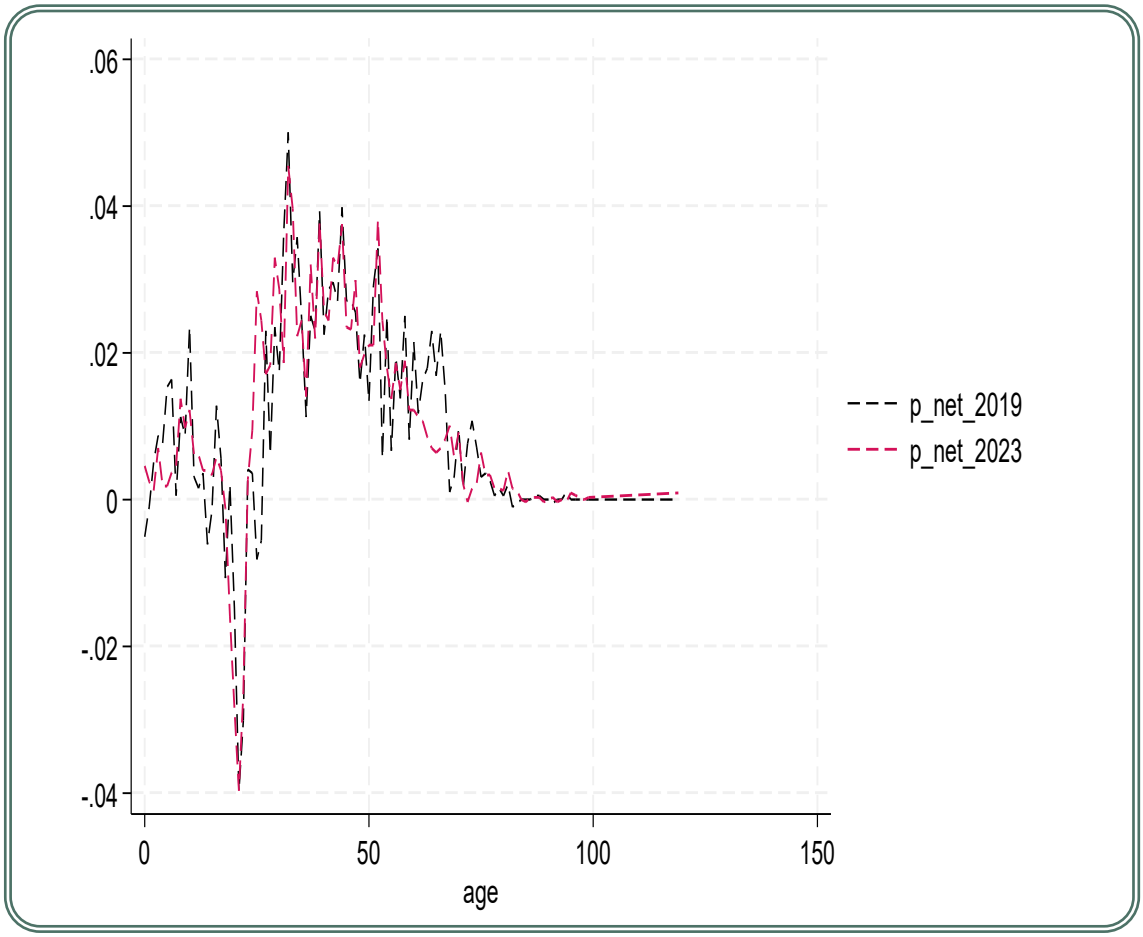


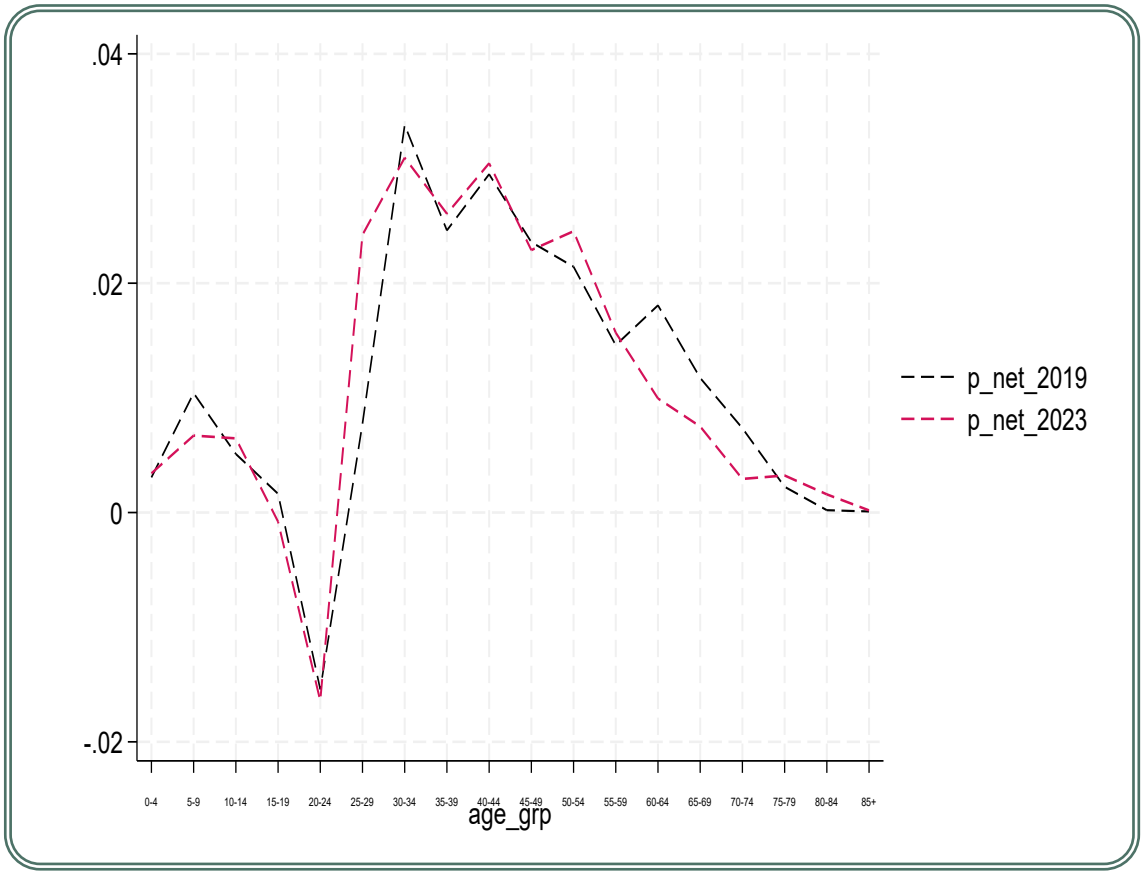
Standardised age pattern of annual migration flows by movement type





Age pattern of net migration flows by volume, single years and age groups





Standardised age pattern of net migration flows by single years and age groups

Definitions

1. Fertility:
Refers to the number of live births women have.

2. Mortality:
The state of being mortal or subject to death.

3. Migration:
Migration is the geographic movement of people across a specified boundary for the purpose of establishing a new permanent or semipermanent residence.

4. Total Fertility Rate (TFR)
It is the average number of children that would be born to a woman by the time she ended childbearing if she were to pass through all her childbearing years conforming to the age-specific fertility rates of a given year.

5. Age Specific Fertility Rate (ASFR)
The number of live births per 1,000 women in a specific age group within a given year.

6. Age Specific Mortality Rate (ASMR)
The number of deaths occurring in a specific age group within a given population over a defined period of time, usually expressed per 1,000 or 100,000 individuals in that age group.

7. Life Expectancy
A statistical measure that estimates the average number of years a person or a population is expected to live, based on current mortality rates and other demographic factors.

8. Variant
Refers to a measure of dispersion or variability within a dataset.
It quantifies how spread out or scattered the values in a dataset are from the average (mean) or central value.