

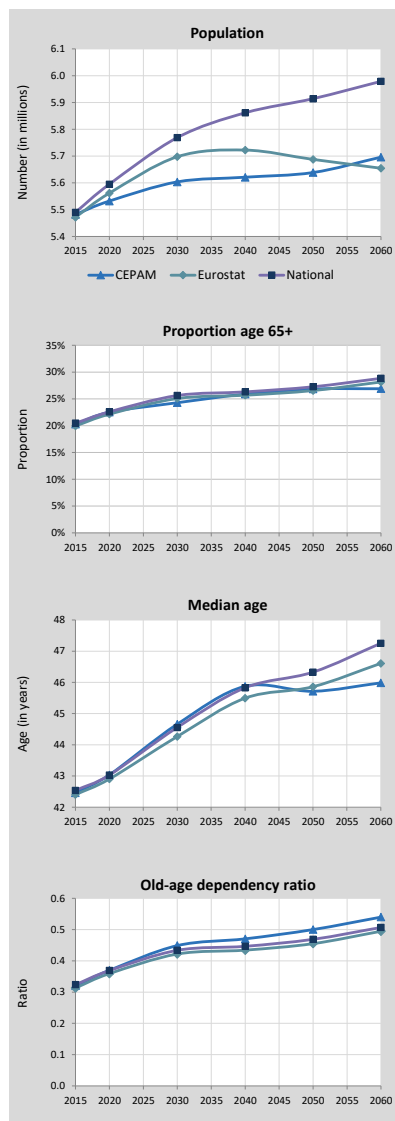
Finland

Detailed Human Capital projections to 2060

Comparison of CEPAM projections with other sources

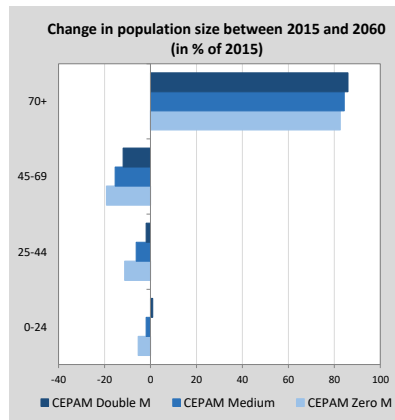
Demographic indicators - CEPAM Medium Scenario (SSP2), Eurostat and national projections							
		2015	2020	2030	2040	2050	2060
Population (in millions)	CEPAM	5.48	5.53	5.60	5.62	5.64	5.70
	Eurostat	5.47	5.56	5.70	5.72	5.69	5.65
	National	5.49	5.60	5.77	5.86	5.91	5.98
Proportion age 65+	CEPAM	20.3%	22.5%	24.3%	25.9%	26.8%	26.9%
	Eurostat	19.9%	22.1%	25.1%	25.7%	26.6%	28.2%
	National	20.5%	22.6%	25.6%	26.3%	27.3%	28.8%
Proportion below age 20	CEPAM	21.9%	21.9%	21.8%	21.4%	21.4%	21.4%
	Eurostat	22.0%	21.5%	21.0%	20.5%	20.3%	20.1%
	National	21.8%	21.5%	20.7%	20.0%	19.6%	19.3%
Median age	CEPAM	42.5	43.0	44.7	45.9	45.7	46.0
	Eurostat	42.4	42.9	44.3	45.5	45.9	46.6
	National	42.5	43.0	44.6	45.8	46.3	47.3
Old-age dependency ratio (65+/15-64)	CEPAM	0.32	0.37	0.45	0.47	0.50	0.54
	Eurostat	0.31	0.36	0.42	0.43	0.46	0.49
	National	0.32	0.37	0.43	0.45	0.47	0.51
Young-age dependency ratio (0-14/15-64)	CEPAM	0.26	0.27	0.28	0.28	0.29	0.29
	Eurostat	0.26	0.26	0.26	0.26	0.26	0.26
	National	0.26	0.26	0.26	0.25	0.25	0.25
Parent support ratio (85+/50-64)	CEPAM	0.12	0.14	0.21	0.34	0.41	0.47
	Eurostat	0.12	0.14	0.19	0.29	0.32	0.34
	National	0.12	0.14	0.22	0.32	0.36	0.37

Demographic assumptions underlying projections							
		2010-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060
Total fertility rate	CEPAM	1.87	1.89	1.92	1.98	1.99	1.97
	Eurostat	1.68	1.71	1.72	1.73	1.75	1.77
	National	1.70	1.70	1.70	1.70	1.70	1.70
Life expectancy at birth (in years)							
Male	CEPAM	78.8	79.9	80.9	83.1	85.2	87.4
	Eurostat	78.7	79.5	80.3	81.7	83.1	84.4
	National	79.1	80.3	81.4	83.5	85.3	86.9
Female	CEPAM	84.4	85.4	86.5	88.6	90.7	92.8
	Eurostat	84.3	84.9	85.5	86.7	87.9	89.0
	National	84.7	85.6	86.4	87.8	89.2	90.3
Five-year net migration flow (in thousands)	CEPAM	10.7	13.0	15.2	19.2	22.7	25.0
	Eurostat	77.6	75.5	70.3	51.8	47.2	41.3
	National	81.5	85.1	85.1	85.0	85.0	85.0



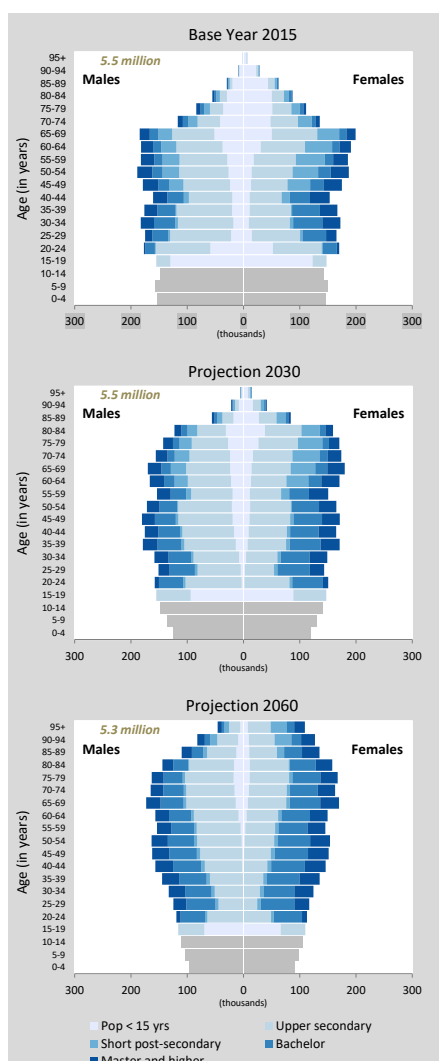
Changes in population size and structure according to CEPAM scenarios (impact of migration)

Population size according to CEPAM projections to 2060							
		2015	2020	2030	2040	2050	2060
Population (in millions)	Zero M	5.48	5.52	5.56	5.54	5.50	5.50
	Medium	5.48	5.53	5.60	5.62	5.64	5.70
	Double M	5.48	5.54	5.64	5.70	5.76	5.88
Population 0-24 (in millions)	Zero M	1.55	1.51	1.52	1.50	1.47	1.47
	Medium	1.55	1.51	1.53	1.52	1.51	1.52
	Double M	1.55	1.52	1.54	1.54	1.54	1.56
Population 25-44 (in millions)	Zero M	1.35	1.38	1.27	1.19	1.21	1.20
	Medium	1.35	1.39	1.30	1.23	1.27	1.27
	Double M	1.35	1.39	1.32	1.27	1.31	1.33
Population 45-69 (in millions)	Zero M	1.85	1.74	1.67	1.63	1.57	1.50
	Medium	1.85	1.74	1.67	1.65	1.62	1.57
	Double M	1.85	1.74	1.68	1.67	1.66	1.63
Population 70+ (in millions)	Zero M	0.73	0.89	1.10	1.22	1.24	1.33
	Medium	0.73	0.89	1.10	1.22	1.24	1.34
	Double M	0.73	0.89	1.11	1.22	1.25	1.35



Finland (Continued)

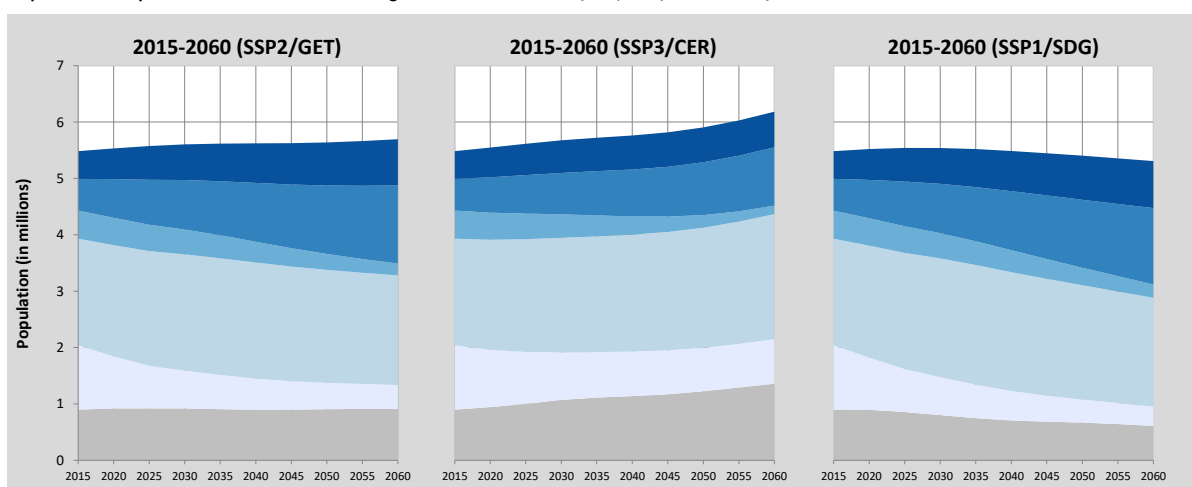
Pyramids by education, CEPAM Medium



Detailed Human Capital projections to 2060

Human Capital indicators, CEPAM Medium (SSP2)						
	2015	2020	2030	2040	2050	2060
Population age 25+: highest educational attainment (columns sum to 100%)						
E1-E4 - lower secondary and below	19.7%	16.6%	11.9%	9.0%	7.2%	6.2%
E5 - upper secondary	42.2%	43.1%	44.2%	44.4%	43.9%	43.0%
E6 - short post-secondary	12.6%	11.9%	10.5%	8.6%	6.4%	4.6%
E7 - bachelor	13.2%	15.2%	18.5%	21.9%	25.3%	28.2%
E8 - master and higher	12.3%	13.2%	14.8%	16.1%	17.2%	18.0%
Mean years of schooling (in years)	12.52	12.80	13.21	13.50	13.72	13.89
Age gap: highest educational attainment (ratio 35-44/50-64)						
E1-E4 - lower secondary and below	0.68	0.77	0.74	0.61	0.58	0.72
E5 - upper secondary	1.08	1.15	1.04	0.93	0.93	0.91
E6 - short post-secondary	0.20	0.10	0.34	1.43	1.14	1.11
E7 - bachelor	2.54	2.35	1.41	1.15	1.14	1.11
E8 - master and higher	1.30	1.02	0.95	1.12	1.14	1.11
Mean years of schooling (35-44 minus 50-64)	0.53	0.15	0.19	0.45	0.46	0.43
Gender gap (population age 25+): highest educational attainment (% males - %females)						
E1-E4 - lower secondary and below	0.56	1.55	2.76	3.14	3.03	2.64
E5 - upper secondary	7.48	7.99	9.20	10.62	11.80	12.49
E6 - short post-secondary	-4.97	-5.08	-5.07	-4.50	-3.36	-2.11
E7 - bachelor	-2.14	-2.82	-4.03	-5.36	-6.73	-7.84
E8 - master and higher	-0.94	-1.64	-2.86	-3.91	-4.75	-5.18
Mean years of schooling (male minus female)	-0.20	-0.30	-0.40	-0.50	-0.60	-0.60
Women age 20-39: highest educational attainment (columns sum to 100%)						
E1-E4 - lower secondary and below	13%	10%	6%	6%	5%	6%
E5 - upper secondary	47%	45%	43%	40%	38%	36%
E6 - short post-secondary	2%	3%	4%	4%	4%	4%
E7 - bachelor	25%	28%	32%	34%	36%	37%
E8 - master and higher	13%	14%	15%	16%	17%	18%
Mean years of schooling (in years)	13.14	13.52	13.99	14.20	14.39	14.56
Age gap among women: highest educational attainment (ratio 35-44/50-64)						
E1-E4 - lower secondary and below	0.61	0.75	0.73	0.61	0.55	0.67
E5 - upper secondary	1.01	1.11	1.04	0.90	0.88	0.87
E6 - short post-secondary	0.20	0.09	0.32	1.44	1.14	1.10
E7 - bachelor	2.96	2.66	1.41	1.12	1.13	1.10
E8 - master and higher	1.48	1.11	0.96	1.11	1.13	1.10
Mean years of schooling (35-44 minus 50-64)	0.70	0.26	0.16	0.44	0.51	0.47

Population size by educational attainment according to three scenarios: SSP2/GET, SSP3/CER and SSP1/SDG



Colour legend as in pyramids above

Education scenarios

SSP2/GET : Global Education Trend Scenario (Medium assumption)

SSP3/CER : Constant Enrollment Rates Scenario (assumption of no future improvements)

SSP1/SDG : Sustainable Development Goal Scenario (universal primary and secondary education by 2030)

Finland (Continued)

Alternative scenarios to 2100

Projection results by scenario (SSP1-SSP3)

	2015	2020	2030	2050	2060	2075	2100
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Population (in millions)

SSP1 - Rapid Development	5.48	5.52	5.54	5.40	5.31	5.17	4.85
SSP2 - CEPAM Zero Migration	5.48	5.52	5.56	5.50	5.50	5.53	5.60
SSP2 - CEPAM Medium	5.48	5.53	5.60	5.64	5.70	5.83	6.09
SSP2 - CEPAM Double Migration	5.48	5.54	5.64	5.76	5.88	6.10	6.48
SSP3 - Stalled Development	5.48	5.55	5.68	5.91	6.18	6.76	8.22

Proportion age 65+

SSP1 - Rapid Development	20.3%	22.7%	27.1%	32.5%	36.2%	41.4%	50.3%
SSP2 - CEPAM Zero Migration	20.3%	22.6%	26.1%	28.5%	30.1%	31.3%	34.7%
SSP2 - CEPAM Medium	20.3%	22.5%	25.9%	28.0%	29.4%	30.6%	34.1%
SSP2 - CEPAM Double Migration	20.3%	22.5%	25.7%	27.5%	28.9%	30.1%	33.7%
SSP3 - Stalled Development	20.3%	22.3%	24.7%	23.7%	23.2%	20.9%	20.7%

Proportion below age 20

SSP1 - Rapid Development	21.9%	21.5%	19.9%	16.7%	15.7%	13.7%	11.5%
SSP2 - CEPAM Zero Migration	21.9%	21.9%	21.8%	21.4%	21.4%	20.5%	19.2%
SSP2 - CEPAM Medium	21.9%	21.9%	21.8%	21.4%	21.3%	20.5%	19.2%
SSP2 - CEPAM Double Migration	21.9%	21.9%	21.8%	21.3%	21.3%	20.4%	19.1%
SSP3 - Stalled Development	21.9%	22.3%	24.2%	27.1%	28.5%	29.2%	28.9%

Proportion of women age 20-39 with post-secondary education

SSP1 - Rapid Development	39.8%	46.9%	55.7%	67.2%	71.8%	77.1%	81.9%
SSP2 - CEPAM Zero Migration	39.8%	47.8%	57.4%	67.2%	71.2%	76.0%	80.5%
SSP2 - CEPAM Medium	39.8%	47.3%	56.5%	66.1%	70.1%	74.9%	79.6%
SSP2 - CEPAM Double Migration	39.8%	46.9%	55.7%	65.1%	69.1%	74.0%	78.9%
SSP3 - Stalled Development	39.8%	41.0%	40.8%	39.6%	40.2%	39.7%	40.0%

Mean years of schooling, age 25+

SSP1 - Rapid Development	12.5	12.8	13.2	13.8	13.9	14.2	14.6
SSP2 - CEPAM Zero Migration	12.5	12.8	13.3	13.9	14.1	14.3	14.7
SSP2 - CEPAM Medium	12.5	12.8	13.2	13.7	13.9	14.1	14.5
SSP2 - CEPAM Double Migration	12.5	12.8	13.1	13.6	13.7	14.0	14.4
SSP3 - Stalled Development	12.5	12.8	13.1	13.5	13.5	13.5	13.5

Demographic assumptions underlying SSPs

	2015-2020	2020-2025	2030-2035	2050-2055	2060-2065	2075-2080	2095-2100
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Total fertility rate

SSP1 - Rapid Development	1.73	1.63	1.54	1.49	1.47	1.45	1.42
SSP2 - CEPAM Zero Migration	1.87	1.89	1.97	1.99	1.97	1.94	1.90
SSP2 - CEPAM Medium	1.87	1.89	1.96	1.98	1.96	1.93	1.90
SSP2 - CEPAM Double Migration	1.87	1.88	1.96	1.98	1.96	1.93	1.89
SSP3 - Stalled Development	2.03	2.24	2.54	2.65	2.63	2.58	2.53

Life expectancy at birth for females (in years)

SSP1 - Rapid Development	84.8	86.4	89.5	95.8	98.9	103.6	109.8
SSP2 - CEPAM Zero Migration	84.4	85.4	87.5	91.8	93.9	97.1	101.4
SSP2 - CEPAM Medium	84.4	85.4	87.5	91.8	93.9	97.1	101.3
SSP2 - CEPAM Double Migration	84.4	85.4	87.5	91.7	93.8	97.0	101.2
SSP3 - Stalled Development	83.8	84.4	85.5	87.7	88.9	90.5	92.7

Migration – net flow over five years (in thousands)

SSP1 - Rapid Development	10.7	12.7	15.8	19.7	20.1	18.9	15.4
SSP2 - CEPAM Zero Migration	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSP2 - CEPAM Medium	10.8	13.0	17.2	23.7	25.2	25.5	23.1
SSP2 - CEPAM Double Migration	21.5	25.6	33.1	44.1	45.9	45.1	38.9
SSP3 - Stalled Development	7.2	4.4	0.0	0.0	0.0	0.1	0.1

Ageing indicators by scenario

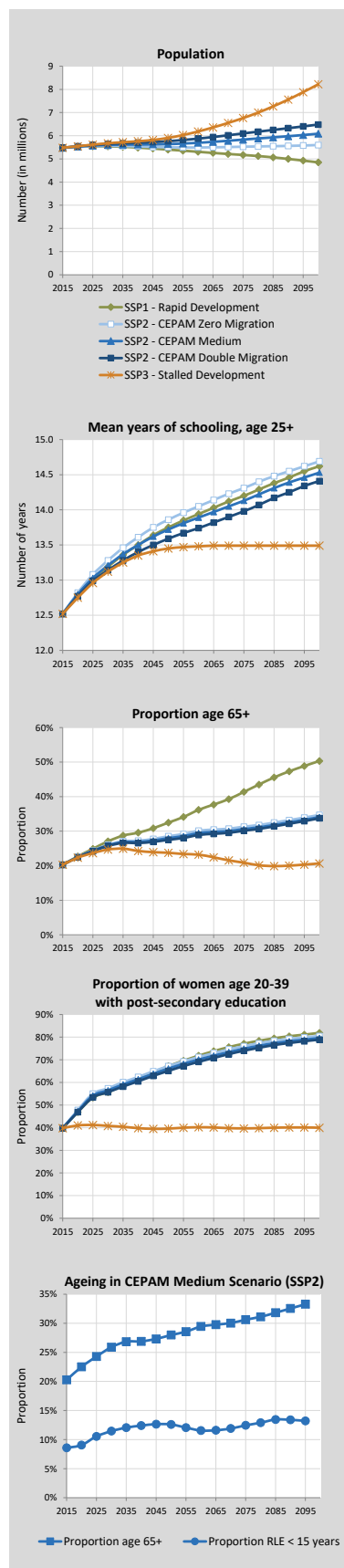
	2015	2020	2030	2050	2060	2075	2095
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Median age

SSP1 - Rapid Development	42.5	43.3	45.9	50.8	53.0	57.8	63.9
SSP2 - CEPAM Zero Migration	42.5	43.1	44.8	46.1	46.4	47.8	49.6
SSP2 - CEPAM Medium	42.5	43.0	44.7	45.7	46.0	47.4	49.2
SSP2 - CEPAM Double Migration	42.5	43.0	44.5	45.4	45.7	47.1	49.0
SSP3 - Stalled Development	42.5	42.8	43.2	39.8	37.7	36.6	36.6

Proportion with less than 15 years of remaining life expectancy (RLE)

SSP1 - Rapid Development	8.6%	9.0%	11.5%	12.6%	11.6%	12.4%	13.2%
SSP2 - CEPAM Zero Migration	9.0%	9.0%	12.2%	12.5%	11.8%	12.2%	10.9%
SSP2 - CEPAM Medium	9.0%	9.9%	12.1%	12.2%	11.4%	11.8%	10.5%
SSP2 - CEPAM Double Migration	9.0%	9.8%	12.1%	12.0%	11.0%	11.4%	10.2%
SSP3 - Stalled Development	9.3%	10.8%	13.1%	11.6%	11.1%	10.2%	7.6%



Finland (Continued)

Labour force projections to 2060

Labour force indicators

	2015	2020	2030	2040	2050	2060
Labour force size, by participation and migration scenario (in millions)						
Constant (CEPAM Zero Migration)	2.70	2.67	2.60	2.56	2.50	2.45
Constant (CEPAM Medium)	2.70	2.68	2.62	2.61	2.58	2.56
Constant (CEPAM Double Migration)	2.70	2.68	2.65	2.65	2.65	2.66
Swedish (CEPAM Zero Migration)	2.70	2.71	2.69	2.70	2.69	2.69
Swedish (CEPAM Medium)	2.70	2.71	2.71	2.75	2.78	2.81
Swedish (CEPAM Double Migration)	2.70	2.72	2.74	2.80	2.85	2.92
Equalization (CEPAM Zero Migration)	2.70	2.69	2.63	2.61	2.56	2.53
Equalization (CEPAM Medium)	2.70	2.69	2.66	2.66	2.64	2.65
Equalization (CEPAM Double Migration)	2.70	2.70	2.68	2.70	2.72	2.75
Constant (CEPAM Medium-low fertility)	2.70	2.68	2.62	2.57	2.44	2.30
Swedish (CEPAM Medium-low fertility)	2.70	2.71	2.71	2.71	2.64	2.53
Equalization (CEPAM Medium-low fertility)	2.70	2.69	2.66	2.62	2.51	2.38

Labour force participation rates, age 15+, by participation scenario (CEPAM Medium)

TOTAL (Constant)	58.9%	58.0%	55.9%	55.1%	54.5%	53.6%
TOTAL (Swedish)	58.9%	58.7%	57.9%	58.2%	58.7%	58.8%
TOTAL (Equalization)	58.9%	58.3%	56.6%	56.2%	55.9%	55.5%
MALE (Constant)	62.9%	61.9%	59.6%	58.7%	57.9%	57.0%
MALE (Swedish)	62.9%	62.6%	61.6%	61.9%	62.3%	62.2%
MALE (Equalization)	62.9%	61.9%	59.6%	58.7%	57.9%	57.0%
FEMALE (Constant)	55.1%	54.4%	52.4%	51.6%	51.1%	50.4%
FEMALE (Swedish)	55.1%	55.0%	54.3%	54.6%	55.2%	55.5%
FEMALE (Equalization)	55.1%	54.9%	53.7%	53.7%	53.9%	54.1%

Labour force (15+) by highest level of educational attainment. Columns sum to 100%. (CEPAM Medium; Constant participation)

TOTAL E1-E4 - lower secondary and below	12.5%	10.0%	7.5%	6.4%	5.3%	4.5%
TOTAL E5 - upper secondary	45.6%	45.6%	45.5%	44.1%	41.2%	38.3%
TOTAL E6 - short post-secondary	11.3%	9.1%	5.1%	3.4%	3.6%	3.8%
TOTAL E7 - bachelor	16.2%	19.8%	25.6%	29.2%	31.9%	34.0%
TOTAL E8 - master and higher	14.4%	15.4%	16.3%	16.8%	18.1%	19.3%
MALE E1-E4 - lower secondary and below	14.8%	12.0%	8.9%	7.4%	6.0%	4.9%
MALE E5 - upper secondary	50.0%	50.6%	51.3%	50.4%	48.1%	45.7%
MALE E6 - short post-secondary	8.4%	7.0%	4.1%	3.0%	3.0%	3.3%
MALE E7 - bachelor	14.0%	17.0%	21.6%	24.6%	27.2%	29.3%
MALE E8 - master and higher	12.8%	13.4%	14.1%	14.5%	15.7%	16.9%
FEMALE E1-E4 - lower secondary and below	10.1%	7.8%	5.9%	5.3%	4.5%	4.0%
FEMALE E5 - upper secondary	40.8%	40.1%	39.2%	37.3%	33.6%	30.1%
FEMALE E6 - short post-secondary	14.4%	11.5%	6.1%	3.9%	4.2%	4.5%
FEMALE E7 - bachelor	18.5%	23.0%	30.0%	34.1%	37.0%	39.4%
FEMALE E8 - master and higher	16.1%	17.5%	18.8%	19.4%	20.7%	22.1%

Labour force size by educational attainment according to three migration scenarios, 2015-2060 (Labour force participation = Constant scenario)

