

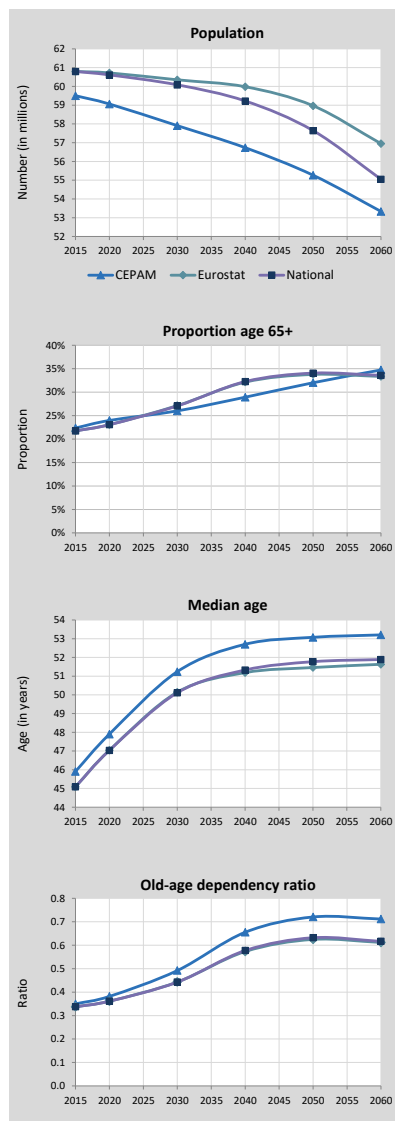
Italy

Detailed Human Capital projections to 2060

Comparison of CEPAM projections with other sources

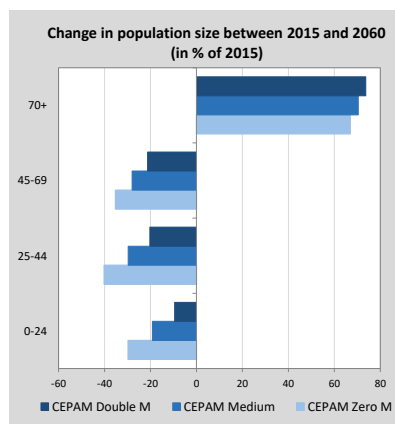
Demographic indicators - CEPAM Medium Scenario (SSP2), Eurostat and national projections							
		2015	2020	2030	2040	2050	2060
Population (in millions)	CEPAM	59.50	59.06	57.91	56.73	55.27	53.33
	Eurostat	60.80	60.72	60.35	59.98	58.97	56.95
	National	60.80	60.61	60.08	59.22	57.64	55.05
Proportion age 65+	CEPAM	22.4%	24.0%	26.0%	28.9%	32.0%	34.7%
	Eurostat	21.7%	23.1%	27.1%	32.1%	33.8%	33.4%
	National	21.7%	23.1%	27.1%	32.3%	34.1%	33.6%
Proportion below age 20	CEPAM	18.4%	18.0%	16.7%	16.4%	16.6%	16.5%
	Eurostat	18.5%	17.9%	16.2%	15.8%	16.3%	16.5%
	National	18.5%	17.9%	16.4%	16.0%	16.2%	16.3%
Median age	CEPAM	45.9	47.9	51.2	52.7	53.1	53.2
	Eurostat	45.1	47.0	50.1	51.2	51.5	51.6
	National	45.1	47.0	50.1	51.3	51.8	51.9
Old-age dependency ratio (65+/15-64)	CEPAM	0.35	0.38	0.49	0.66	0.72	0.71
	Eurostat	0.34	0.36	0.44	0.57	0.62	0.61
	National	0.34	0.36	0.44	0.58	0.63	0.62
Young-age dependency ratio (0-14/15-64)	CEPAM	0.21	0.21	0.21	0.23	0.24	0.24
	Eurostat	0.21	0.20	0.19	0.21	0.22	0.22
	National	0.21	0.21	0.19	0.21	0.22	0.22
Parent support ratio (85+/50-64)	CEPAM	0.16	0.17	0.22	0.37	0.59	0.76
	Eurostat	0.16	0.17	0.20	0.29	0.42	0.51
	National	0.16	0.17	0.19	0.28	0.41	0.49

Demographic assumptions underlying projections							
		2010-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060
Total fertility rate	CEPAM	1.50	1.53	1.56	1.60	1.61	1.61
	Eurostat	1.35	1.37	1.40	1.46	1.52	1.58
	National	1.37	1.43	1.46	1.50	1.54	1.57
Life expectancy at birth (in years)							
Male	CEPAM	81.0	82.1	83.1	85.1	87.2	89.2
	Eurostat	80.8	81.6	82.2	83.4	84.6	85.6
	National	80.9	81.6	82.2	83.5	84.6	85.5
Female	CEPAM	85.4	86.4	87.5	89.7	91.8	94.0
	Eurostat	85.5	86.1	86.7	87.8	88.8	89.8
	National	85.4	86.0	86.6	87.7	88.7	89.6
Five-year net migration flow (in thousands)	CEPAM	262.4	301.7	339.0	406.4	464.8	513.5
	Eurostat	715.3	841.4	969.4	1059.6	1007.8	917.8
	National	700.8	760.9	797.0	804.7	779.9	739.8



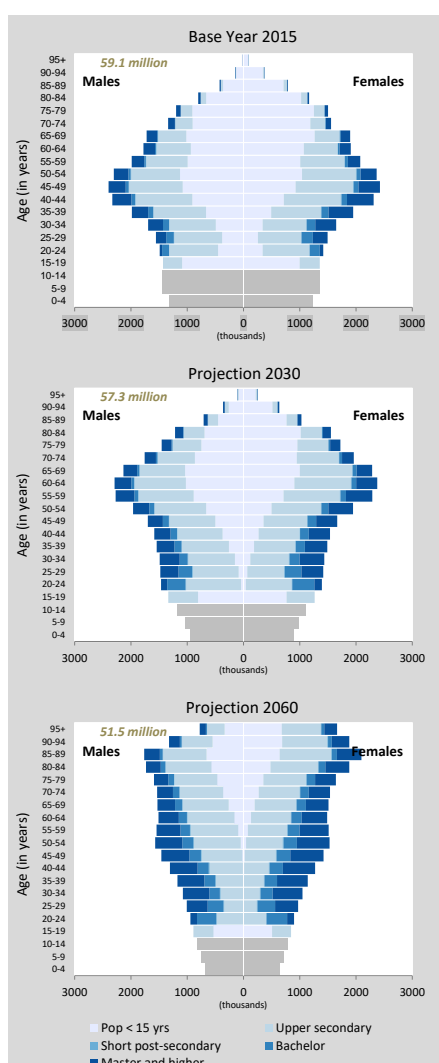
Changes in population size and structure according to CEPAM scenarios (impact of migration)

Population size according to CEPAM projections to 2060							
		2015	2020	2030	2040	2050	2060
Population (in millions)	Zero M	59.50	58.78	56.84	54.61	51.86	48.43
	Medium	59.50	59.06	57.91	56.73	55.27	53.33
	Double M	59.50	59.34	58.95	58.75	58.44	57.82
Population 0-24 (in millions)	Zero M	13.86	13.36	12.21	11.13	10.47	9.74
	Medium	13.86	13.45	12.55	11.84	11.56	11.21
	Double M	13.86	13.53	12.89	12.51	12.58	12.56
Population 25-44 (in millions)	Zero M	15.01	13.22	11.50	10.90	9.97	8.98
	Medium	15.01	13.38	12.04	11.75	11.14	10.56
	Double M	15.01	13.54	12.56	12.54	12.21	11.97
Population 45-69 (in millions)	Zero M	20.97	21.61	20.79	17.33	14.52	13.58
	Medium	20.97	21.64	20.97	17.85	15.54	15.10
	Double M	20.97	21.67	21.13	18.36	16.51	16.52
Population 70+ (in millions)	Zero M	9.66	10.58	12.34	15.26	16.90	16.13
	Medium	9.66	10.59	12.35	15.30	17.02	16.46
	Double M	9.66	10.59	12.36	15.34	17.13	16.78



Italy (Continued)

Pyramids by education, CEPAM Medium



Detailed Human Capital projections to 2060

Human Capital indicators, CEPAM Medium (SSP2)

	2015	2020	2030	2040	2050	2060
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Population age 25+: highest educational attainment (columns sum to 100%)

E1-E4 - lower secondary and below	49.7%	45.6%	37.4%	30.2%	24.3%	19.1%
E5 - upper secondary	34.7%	36.9%	41.2%	44.2%	45.8%	46.3%
E6 - short post-secondary	0.4%	0.4%	0.5%	0.6%	0.6%	0.7%
E7 - bachelor	3.1%	3.7%	5.1%	6.5%	8.0%	9.6%
E8 - master and higher	12.1%	13.3%	15.9%	18.5%	21.3%	24.3%
Mean years of schooling (in years)	10.75	11.18	11.99	12.69	13.28	13.84

Age gap: highest educational attainment (ratio 35-44/50-64)

E1-E4 - lower secondary and below	0.65	0.61	0.55	0.52	0.54	0.71
E5 - upper secondary	1.22	1.19	1.15	1.08	0.97	0.90
E6 - short post-secondary	1.21	1.06	1.19	1.34	1.31	1.23
E7 - bachelor	2.23	2.67	2.26	1.44	1.30	1.23
E8 - master and higher	1.61	1.52	1.28	1.30	1.30	1.23
Mean years of schooling (35-44 minus 50-64)	1.56	1.48	1.27	1.23	1.09	0.88

Gender gap (population age 25+): highest educational attainment (% males - %females)

E1-E4 - lower secondary and below	-1.17	-0.39	1.18	2.42	3.09	3.10
E5 - upper secondary	3.23	3.15	3.10	3.45	4.22	5.56
E6 - short post-secondary	-0.10	-0.10	-0.11	-0.11	-0.12	-0.12
E7 - bachelor	-1.00	-1.13	-1.43	-1.77	-2.10	-2.44
E8 - master and higher	-0.96	-1.53	-2.74	-3.98	-5.10	-6.10
Mean years of schooling (male minus female)	0.30	0.10	-0.10	-0.40	-0.50	-0.60

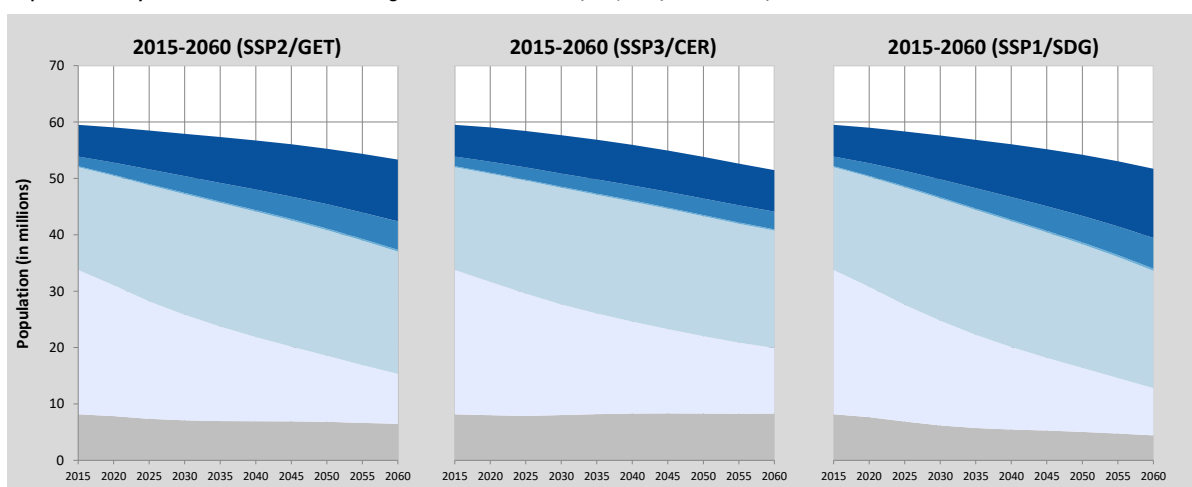
Women age 20-39: highest educational attainment (columns sum to 100%)

E1-E4 - lower secondary and below	22%	18%	12%	9%	8%	8%
E5 - upper secondary	50%	50%	51%	48%	44%	41%
E6 - short post-secondary	1%	1%	1%	1%	1%	1%
E7 - bachelor	10%	12%	15%	17%	19%	21%
E8 - master and higher	17%	18%	21%	25%	28%	30%
Mean years of schooling (in years)	13.23	13.61	14.36	14.87	15.28	15.61

Age gap among women: highest educational attainment (ratio 35-44/50-64)

E1-E4 - lower secondary and below	0.58	0.55	0.51	0.50	0.53	0.68
E5 - upper secondary	1.20	1.14	1.11	1.03	0.92	0.86
E6 - short post-secondary	1.42	1.10	1.04	1.25	1.30	1.23
E7 - bachelor	2.14	2.56	2.23	1.43	1.30	1.23
E8 - master and higher	1.94	1.74	1.28	1.27	1.30	1.23
Mean years of schooling (35-44 minus 50-64)	1.99	1.78	1.34	1.23	1.15	0.96

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)

Italy (Continued)

Alternative scenarios to 2100

Projection results by scenario (SSP1-SSP3)

	2015	2020	2030	2050	2060	2075	2100
Population (in millions)							
SSP1 - Rapid Development	59.50	59.01	57.60	54.20	51.70	47.42	42.91
SSP2 - CEPAM Zero Migration	59.50	58.78	56.84	51.86	48.43	43.44	38.57
SSP2 - CEPAM Medium	59.50	59.06	57.91	55.27	53.34	50.94	50.66
SSP2 - CEPAM Double Migration	59.50	59.34	58.95	58.44	57.82	57.60	60.88
SSP3 - Stalled Development	59.50	59.04	57.66	53.81	51.48	49.58	51.09

Proportion age 65+

SSP1 - Rapid Development	22.4%	24.2%	30.1%	41.4%	43.8%	47.7%	54.4%
SSP2 - CEPAM Zero Migration	22.4%	24.1%	29.4%	38.7%	39.1%	39.7%	42.9%
SSP2 - CEPAM Medium	22.4%	24.0%	28.9%	36.7%	36.5%	36.5%	38.9%
SSP2 - CEPAM Double Migration	22.4%	23.9%	28.5%	35.1%	34.6%	34.5%	37.0%
SSP3 - Stalled Development	22.4%	23.8%	28.1%	33.5%	31.4%	28.2%	27.3%

Proportion below age 20

SSP1 - Rapid Development	18.4%	17.7%	15.2%	12.7%	11.9%	10.9%	9.7%
SSP2 - CEPAM Zero Migration	18.4%	18.0%	16.5%	16.0%	15.7%	15.6%	14.8%
SSP2 - CEPAM Medium	18.4%	18.0%	16.7%	16.6%	16.5%	16.6%	16.1%
SSP2 - CEPAM Double Migration	18.4%	18.0%	16.9%	17.1%	17.1%	17.3%	16.7%
SSP3 - Stalled Development	18.4%	18.3%	18.4%	20.6%	21.5%	23.0%	23.4%

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

SSP1 - Rapid Development	28.0%	32.9%	42.3%	61.1%	68.3%	76.9%	82.4%
SSP2 - CEPAM Zero Migration	28.0%	32.5%	40.7%	55.4%	61.7%	70.1%	78.2%
SSP2 - CEPAM Medium	28.0%	32.3%	40.2%	54.2%	60.4%	68.5%	76.7%
SSP2 - CEPAM Double Migration	28.0%	32.1%	39.7%	53.4%	59.5%	67.6%	75.9%
SSP3 - Stalled Development	28.0%	28.9%	29.2%	29.0%	29.1%	29.2%	29.1%

Mean years of schooling, age 25+

SSP1 - Rapid Development	10.8	11.2	12.0	13.4	14.0	14.9	16.0
SSP2 - CEPAM Zero Migration	10.8	11.2	12.0	13.4	14.0	14.8	15.7
SSP2 - CEPAM Medium	10.8	11.2	12.0	13.3	13.8	14.6	15.5
SSP2 - CEPAM Double Migration	10.8	11.2	11.9	13.2	13.7	14.5	15.3
SSP3 - Stalled Development	10.8	11.2	11.9	12.9	13.2	13.4	13.5

Demographic assumptions underlying SSPs

	2015-2020	2020-2025	2030-2035	2050-2055	2060-2065	2075-2080	2095-2100
Total fertility rate							
SSP1 - Rapid Development	1.39	1.32	1.23	1.20	1.20	1.21	1.23
SSP2 - CEPAM Zero Migration	1.50	1.52	1.58	1.61	1.61	1.62	1.64
SSP2 - CEPAM Medium	1.50	1.53	1.58	1.61	1.61	1.62	1.64
SSP2 - CEPAM Double Migration	1.50	1.53	1.58	1.61	1.61	1.62	1.64
SSP3 - Stalled Development	1.62	1.79	2.02	2.14	2.15	2.18	2.21

Life expectancy at birth for females (in years)

SSP1 - Rapid Development	85.9	87.4	90.6	96.9	100.1	104.8	111.1
SSP2 - CEPAM Zero Migration	85.4	86.5	88.6	92.9	95.1	98.4	102.7
SSP2 - CEPAM Medium	85.4	86.4	88.6	92.9	95.1	98.3	102.6
SSP2 - CEPAM Double Migration	85.4	86.4	88.6	92.9	95.0	98.2	102.5
SSP3 - Stalled Development	84.9	85.4	86.6	88.9	90.0	91.7	93.9

Migration – net flow over five years (in thousands)

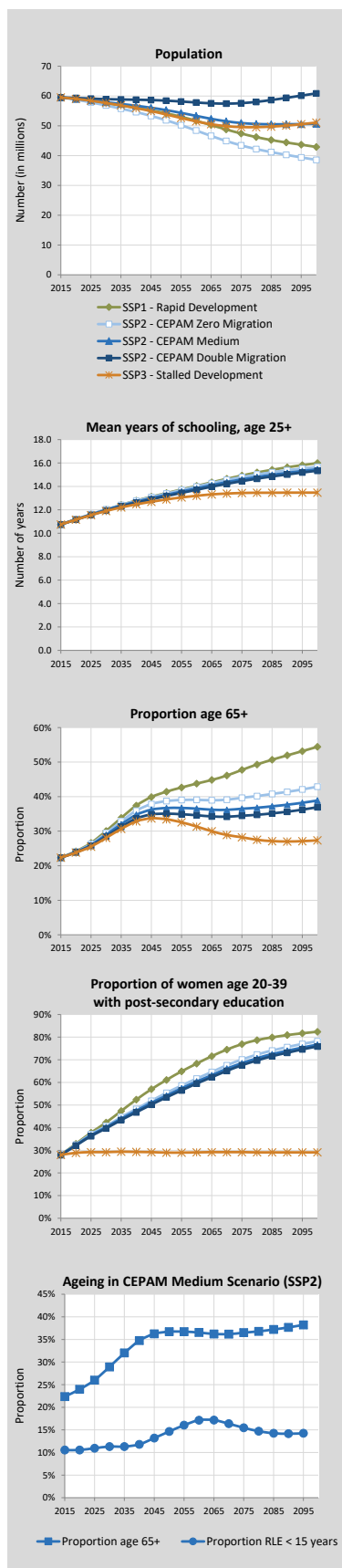
SSP1 - Rapid Development	262.3	297.1	350.0	415.9	430.6	427.8	376.4
SSP2 - CEPAM Zero Migration	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSP2 - CEPAM Medium	262.4	301.4	373.3	486.7	526.7	554.0	538.7
SSP2 - CEPAM Double Migration	524.2	594.5	721.2	907.4	965.1	987.8	919.1
SSP3 - Stalled Development	175.1	102.2	0.3	0.5	0.6	0.7	0.9

Ageing indicators by scenario

	2015	2020	2030	2050	2060	2075	2095
Median age							
SSP1 - Rapid Development	45.9	48.1	52.2	57.6	59.7	63.2	68.1
SSP2 - CEPAM Zero Migration	45.9	48.0	51.8	54.9	55.3	55.9	57.7
SSP2 - CEPAM Medium	45.9	47.9	51.2	53.1	53.2	52.9	54.3
SSP2 - CEPAM Double Migration	45.9	47.8	50.7	51.7	51.7	51.2	52.6
SSP3 - Stalled Development	45.9	47.8	50.5	49.5	47.3	44.3	43.8

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

SSP1 - Rapid Development	10.5%	10.6%	11.3%	14.6%	17.1%	15.5%	14.2%
SSP2 - CEPAM Zero Migration	11.0%	11.2%	12.2%	17.1%	18.5%	15.6%	14.8%
SSP2 - CEPAM Medium	11.0%	11.2%	12.0%	16.1%	16.9%	13.7%	12.6%
SSP2 - CEPAM Double Migration	11.0%	11.1%	11.8%	15.3%	15.6%	12.4%	11.5%
SSP3 - Stalled Development	11.4%	11.9%	12.7%	17.9%	17.0%	13.1%	11.0%



Italy (Continued)

Labour force projections to 2060

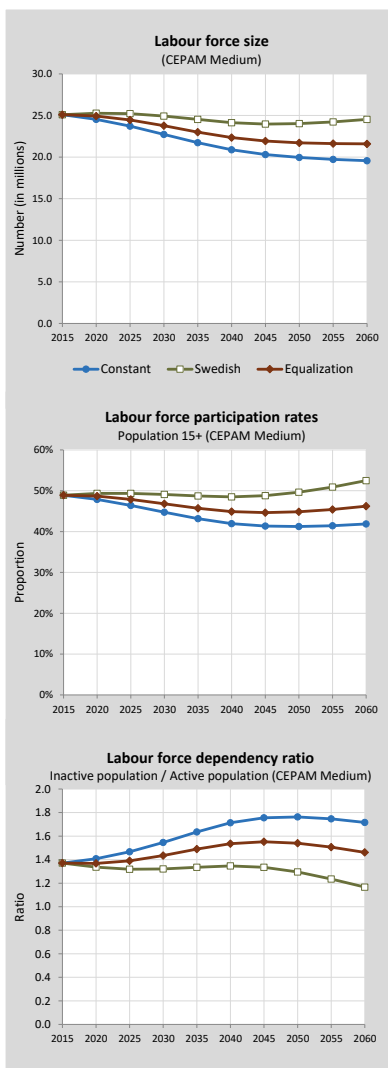
Labour force indicators	2015	2020	2030	2040	2050	2060
Labour force size, by participation and migration scenario (in millions)						
Constant (CEPAM Zero Migration)	25.10	24.39	22.21	19.85	18.31	17.24
Constant (CEPAM Medium)	25.10	24.53	22.74	20.88	19.96	19.57
Constant (CEPAM Double Migration)	25.10	24.67	23.25	21.87	21.50	21.68
Swedish (CEPAM Zero Migration)	25.10	25.13	24.37	22.96	22.03	21.59
Swedish (CEPAM Medium)	25.10	25.27	24.94	24.14	24.03	24.53
Swedish (CEPAM Double Migration)	25.10	25.41	25.49	25.26	25.88	27.21
Equalization (CEPAM Zero Migration)	25.10	24.80	23.21	21.21	19.87	18.96
Equalization (CEPAM Medium)	25.10	24.94	23.77	22.34	21.72	21.59
Equalization (CEPAM Double Migration)	25.10	25.08	24.32	23.42	23.43	23.99
Constant (CEPAM Medium-low fertility)	25.10	24.53	22.73	20.75	19.28	17.99
Swedish (CEPAM Medium-low fertility)	25.10	25.27	24.93	23.91	23.00	22.33
Equalization (CEPAM Medium-low fertility)	25.10	24.94	23.77	22.19	21.00	19.90

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

TOTAL (Constant)	48.9%	47.9%	44.8%	42.0%	41.2%	41.9%
TOTAL (Swedish)	48.9%	49.3%	49.1%	48.5%	49.6%	52.5%
TOTAL (Equalization)	48.9%	48.7%	46.8%	44.9%	44.9%	46.2%
MALE (Constant)	58.5%	56.9%	52.5%	48.8%	47.6%	48.0%
MALE (Swedish)	58.5%	57.9%	55.8%	53.9%	54.1%	56.3%
MALE (Equalization)	58.5%	56.9%	52.5%	48.8%	47.6%	48.0%
FEMALE (Constant)	39.9%	39.4%	37.4%	35.5%	35.2%	36.1%
FEMALE (Swedish)	39.9%	41.3%	42.8%	43.4%	45.4%	48.9%
FEMALE (Equalization)	39.9%	41.0%	41.4%	41.2%	42.3%	44.5%

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

TOTAL E1-E4 - lower secondary and below	32.3%	28.2%	19.8%	13.2%	8.7%	5.8%
TOTAL E5 - upper secondary	45.7%	47.1%	49.3%	49.8%	48.7%	46.2%
TOTAL E6 - short post-secondary	0.5%	0.6%	0.6%	0.7%	0.8%	0.9%
TOTAL E7 - bachelor	4.7%	5.8%	8.3%	10.8%	12.7%	14.4%
TOTAL E8 - master and higher	16.9%	18.4%	22.0%	25.5%	29.0%	32.7%
MALE E1-E4 - lower secondary and below	37.7%	33.6%	24.8%	17.1%	11.5%	7.7%
MALE E5 - upper secondary	44.8%	46.7%	50.6%	53.1%	53.8%	53.0%
MALE E6 - short post-secondary	0.4%	0.5%	0.5%	0.6%	0.8%	0.9%
MALE E7 - bachelor	3.3%	4.2%	6.2%	8.3%	9.9%	11.3%
MALE E8 - master and higher	13.9%	15.0%	17.8%	20.9%	24.0%	27.1%
FEMALE E1-E4 - lower secondary and below	24.9%	20.7%	13.2%	8.2%	5.2%	3.4%
FEMALE E5 - upper secondary	47.0%	47.6%	47.6%	45.5%	42.2%	37.5%
FEMALE E6 - short post-secondary	0.7%	0.7%	0.8%	0.8%	0.9%	1.0%
FEMALE E7 - bachelor	6.5%	7.9%	10.9%	14.0%	16.3%	18.3%
FEMALE E8 - master and higher	21.0%	23.1%	27.6%	31.4%	35.4%	39.7%



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

