

The Cohort-Component Model: United States Simulation

Instructions:

To make a projection for the 2005 population age structure, based on 2000 population, we need the following information:

- a. The 2000 population age distribution
- b. Projection of the number of births between 2000-2004
- c. Projection of the number of migrants for each age cohort between 2000-2004
- d. Projection of the number of deaths for each age cohort between 2000-2004

Example:

If there are 18,800,000 people ages 0-4 in 2000, how many people will be ages 5-9 in 2005?

Lets predict that this age group will gain about 260,000 people from migration during this period (this number considers that some people will also leave the United States).

Lets also predict that about 2,000 people in this age group will die during this period.

So, in thousands: $18,800 - 2 + 260 = 19,058$ thousand

	2000 total population (thousands)	Period: 2000-2005			2005 total population (thousands)
		+ births	- deaths (thousands)	+ migrants	
		19,000	3	130	0-4
0-4	18,800		2	260	5-9 = 19,058
5-9	19,700		1	340	10-14
10-14	19,900		1	570	15-19
15-19	19,800		2	660	20-24
20-24	18,500		2	690	25-29
25-29	17,800		2	680	30-34
30-34	19,500		3	460	35-39
35-39	22,200		4	330	40-44
40-44	22,600		6	230	45-49
45-49	19,900		8	160	50-54
50-54	17,200		10	120	55-59
55-59	13,300		20	110	60-64
60-64	10,600		30	90	65-69
65-69	9,400		40	50	70-74
70-74	8,700		60	20	75-79
75-79	7,400		70	15	80-84
80-84	4,900		80	5	85-90
85+	4,300		150	1	90+