

CORRECTIONAL SERVICE CANADA

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Forecasted and Actual Federal Community Populations: 2017-2018

Recent population forecasts of federal community supervision populations appear to be viable and accurate.

Why we are doing this study

The Correctional Service of Canada (CSC) refreshed its community supervision population forecasts in 2017. A previously developed forecasting model was applied to produce new population estimates from the end of March 2017 to the year-end of 2027. The following provides a status report on the accuracy of the new population estimates after one-year in 2018.

What we did

A forecasting database of weekly snapshots of institutional counts from 1990/91 to 2016/17 was derived from the CSC Offender Management System. The historical time series community supervision population database was used to develop alternative and provisional scenarios for men and women up to 2027. Projections for men and women offenders under community supervision were estimated separately, as historical trends for these two groups differ significantly.

Population forecasts are taken to the last Tuesday midnight institutional count of the fiscal year. SAS/ETS software was used for exploring and analyzing univariate time series data and to select the best-fitting model. Computing estimates for each community supervision across the five administrative regions of CSC added precision by taking into account variations that occur over time with these sub-populations.

What we found

On 27 March 2018, the national actual community supervision count was reported to be **9,167**. By fiscal year-end 2017-18, the national forecast was estimated to be **9,004**. Overall, there was found to be a forecast difference of -163, a small margin of error was obtained -1.78% (or <2%).

With respect to men under community supervision on 27 March 2018, the actual count was reported to be **8,459**. For fiscal year-end 2017-18, the forecast for men was estimated to be **8,365**. For men, there was found to be a forecast difference of -94, similarly a small margin of error was obtained -1.12%.

In relation to women under community supervision on 27 March 2018, the actual count was reported to be **708**. For fiscal year-end 2017-18, the forecast for women was estimated to be **639**. For women, there was found to be a relatively large forecast difference of -69, a greater margin of error was obtained +10.8%.

For regional forecasts, the smaller population bases necessarily increase the forecast to observed differences. Variation (+/-) in differences was observed across the regions.

National and Regional Population Forecasts 2017-2018

Fiscal Year-end	Forecast	Observed Value	Forecast to Observed Difference	% Error
Atlantic	875	884	-9	-1.03
Quebec	2,465	2,373	+92	+3.72
Ontario	2,388	2,456	-68	-2.84
Prairies	1,984	2,106	-122	-0.61
Pacific	1,292	1,384	-92	-7.12
National	9,004	9,167	-163	-1.81
Men	8,365	8,459	-94	-1.12
Women	639	708	-69	-10.80

What it means

The national community supervision count being higher than the end-of-year national forecast estimate is reflective of increased efforts being directed at preparation for safe release and more offenders being granted a discretionary release. At this time, it appears that the current approach to CSC community population forecasting is relatively sound and continued examination of regional variations will assist in the development of future models.

For more information

Please e-mail the [Research Branch](#) or contact us by phone at (613) 995-3975.

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