

# *2002 NWT Population Survey*

## *Preliminary Results*

### Background

Following the release of the 2001 census results by Statistics Canada, the NWT Bureau of Statistics was directed to complete an assessment of the results to examine issues surrounding census coverage. The 2001 census indicated that the population of the Northwest Territories was 37,360 persons, which represented a decline of 5.8% from the count for the 1996 census.

In order to better understand the results from the 2001 census and to provide input into Statistics Canada's assessment of the census, the NWT Bureau of Statistics undertook a series of projects to assess the census results. This report summarizes the preliminary results from the 2002 NWT Population Survey. The population survey is an important component of the census assessment as it identifies a current estimate of the population that can be compared with the census result.

In order to produce final censal estimates of the population, Statistics Canada adjusts the census counts for coverage errors. These final censal estimates are used for a variety of purposes, including funding arrangements between the Northwest Territories and Canada. For the 2001 census, results of Statistics Canada's coverage studies will be released in March 2003, and final censal estimates will be released in September 2003.

### Methodology

The 2002 NWT Population Survey was designed to cover the population in private occupied dwellings and involved a sample of 5,227 dwellings in the Northwest Territories. The sample frame used was the result of the dwelling enumeration project completed in summer 2002, which was the first part of the census assessment. Dwellings were randomly selected with stratification completed by dissemination area (neighborhood) and by dwelling type.

Survey operations were completed with a knowledgeable resident of each selected household using face to face interviews. Surveys were completed in all NWT communities between mid-October and mid-December, using local interviewers to take best advantage of local knowledge. The overall response rate for the survey was approximately 88%.

For households that refused to participate in the survey an attempt was made to determine the number of usual residents from a household resident. For those that would not provide this information or those dwellings that could not be contacted for the duration of the survey, an attempt was made to determine occupancy and the usual number of residents from a knowledgeable source such as a neighbor, building manager, the community government or housing association.

Collective dwellings such as long-term seniors' facilities, hospitals, and correctional centres were not covered by the survey. The estimate of the total population presented in the survey results includes the estimate of residents of collective dwellings found in the 2001 census.

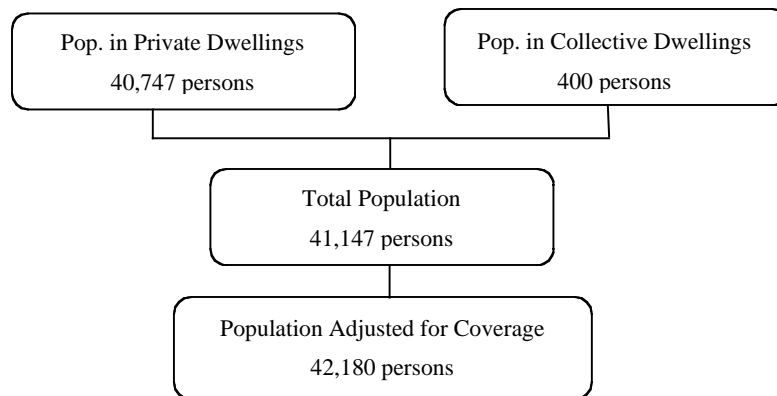
All population counts have coverage errors. These errors, for example, could be the result of people being missed from the enumeration (undercoverage) and from people being counted more than once (overcoverage). Although attempts are made to minimize these errors during the collection and processing operations, studies for the 1996 national census indicated a net undercoverage rate (undercoverage minus overcoverage) for Canada of 2.45%. This net undercoverage value was highest in the Northwest Territories in 1996 at 5.22% and lowest in Prince Edward Island at 0.85%.

In addition to the population count for private dwellings and the estimate of collective dwellings, an adjustment for coverage, using the national rate, has been made to produce the preliminary overall population estimate presented in the survey results section.

### Survey Results

Figure 1 provides the estimated total population for the Northwest Territories. This preliminary estimate of 42,180 persons is comprised of the results of the survey of private dwellings, the estimated population in collective dwellings, and an adjustment for net coverage using the national 1996 coverage adjustment of 2.45%.

*Figure 1  
Estimated Total Population  
2002 NWT Population Survey*



As noted earlier, all counts of population involve coverage errors. Therefore to produce an overall preliminary population estimate for the 2002 NWT population survey, the unadjusted total population has been adjusted by the national coverage rate for the 1996 census. This adjustment is somewhat arbitrary as there is no specific evidence that the results of this survey were any better or worse than the 1996 national census. However, it

is also unrealistic to expect that this survey had no undercoverage errors given historical coverage rates found in previous population counts.

Comparing counts of the population in private dwellings and counts of occupied private dwellings between the 2002 NWT population survey and the 2001 census results indicates some of the problems with coverage that existed with the 2001 census. Table 1 shows these results for the Northwest Territories and selected communities. It should be noted that current Statistics Canada estimates of total population for the Northwest Territories suggest little growth between 2001 and 2002.

*Table 1  
Population\* in Private Dwellings & Number of Occupied Private Dwellings, by Selected Communities  
2002 NWT Population Survey and 2001 Census*

	----- Population -----			--- Occupied Private Dwellings ---		
	2002 Survey	2001 Census	Diff.	2002 Survey	2001 Census	Diff.
Northwest Territories	40,747	36,955	3,792	13,491	12,565	926
Yellowknife	17,807	16,410	1,397	6,032	5,795	237
Inuvik	3,688	2,840	848	1,259	1,015	244
Fort Smith	2,643	2,160	483	928	815	113
Rae-Edzo	1,831	1,535	296	435	385	50
Hay River	3,568	3,430	138	1,258	1,240	18
Lutselk'e	349	245	104	96	70	26
Fort Smith Unorg.	208	15	193	76	6	70

\* Excludes people living in collectives and any adjustment for coverage.

The overall difference is 3,792 persons between the preliminary estimate of population in private dwellings from the population survey and the count from the census. This difference excludes people living in collective dwellings and any adjustment for coverage. If the population survey had the same net undercoverage as the national rate from the 1996 census, this would indicate an overall difference of 4,820 persons from the census count.

Comparing the unadjusted preliminary population counts from the 2002 NWT population survey with the 2001 census counts suggest there may have been significant coverage issues with several communities. In Yellowknife there is a difference of 1,397 persons between these two values. This, however, understates the difference as population residing along the Ingraham Trail was attributed to Yellowknife in error for the published census counts.

Significant differences in the population counts are also noted for Inuvik, at 848 persons, and for Fort Smith at 483 persons. Rae-Edzo at 296 persons, Hay River at 138 persons and Lutselk'e at 104 persons were other communities where the difference between the 2001 census counts and the 2002 population survey was greater than 100 persons.

The Fort Smith Unorganized area refers to the area outside of communities in the southern portion of the Northwest Territories. The difference between the 2002 population survey and the 2001 census of 193 persons can largely be attributed to the population residing along the Ingraham Trail being incorrectly included in Yellowknife for the 2001 counts. However, there are also other areas outside of communities such as along the highway system and on Great Slave Lake that account for part of the reported difference.

### Next Steps

The census assessment being completed by the NWT Bureau of Statistics and the 2001 census coverage studies being done by Statistics Canada are both intended to assess the size of the coverage error for the 2001 census.

Following further verification and data processing, results from the 2002 NWT Population Survey will be finalized. Further detail on differences between the population survey results and the 2001 census will be available at that time. The preliminary results presented here will be shared with Statistics Canada. It is expected that these results, in addition to Statistics Canada's coverage studies, will be used by Statistics Canada to produce a final censal population estimate for the Northwest Territories.