

*The accuracy of sex and age
in the New Zealand Census of 2006*

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The questions of interest

- How good are our Census 2006 usually resident counts by sex and age?
- Does the accuracy of these counts vary by sex and age?

Data capture in Census 2006

- Apart from internet forms, all dwelling forms and all individual forms are scanned.
- Scanned forms are “read” by computer software.
- “Read” data is monitored by staff and amended if necessary.

The study to provide answers

- Survey population: Census 2006 usual residents with unimputed sex and with age derived from date of birth
- “Independent” capture of sex and date of birth by two operators
- Joint exercise between Census User Needs and Population Statistics

The sample

Age	Design %	Actual %	Sample	Population
0-79	4	2.7	100,760	3,669,985
80-94	12	9.9	11,647	117,251
95-99	50	50.9	1,535	3,017
100+	100	92.0	439	477
Total	4.3	3.0	114,381	3,790,730

Census 2006 sex question

3 Are you?

- male
- female

Mark
your answer
like this:

3 He tāne, he wahine rānei koe?

- tāne
- wahine

Me
pēnei te tohu i tō
whakautu:

Results on the capture of sex

- Disagreement rate – 3 records per 10,000 records (0.03%)
- Slight loss of males relative to females in cases of disagreement with the study operators – an estimated 1,000 for the subject population of 3.8M
- Slight gain of males relative to females when the operators were unable to determine sex – an estimated 600 for the subject population

Census 2006 date of birth question

4 When were you born?

day

(eg 30)

month

(eg 05)

year you were born

(eg 1956)

4 Tuhia mai tō rā whānau

rā

(hei tauira 30)

marama

(hei tauira 05)

tau

(hei tauira 1956)

Results on the capture of dob / age

- For the study population, an estimated 99.5 percent of ages agreed with ages from the study
- Males: 99.4% Females: 99.5%
- 5-year age group: M: 99.6%, F: 99.7%
- Agreement / disagreement of ages is affected by sex and age (+)

Estimated single year of age discrepancies in the subject population by 5-year age group (percent)

Figure 2A Males (%)

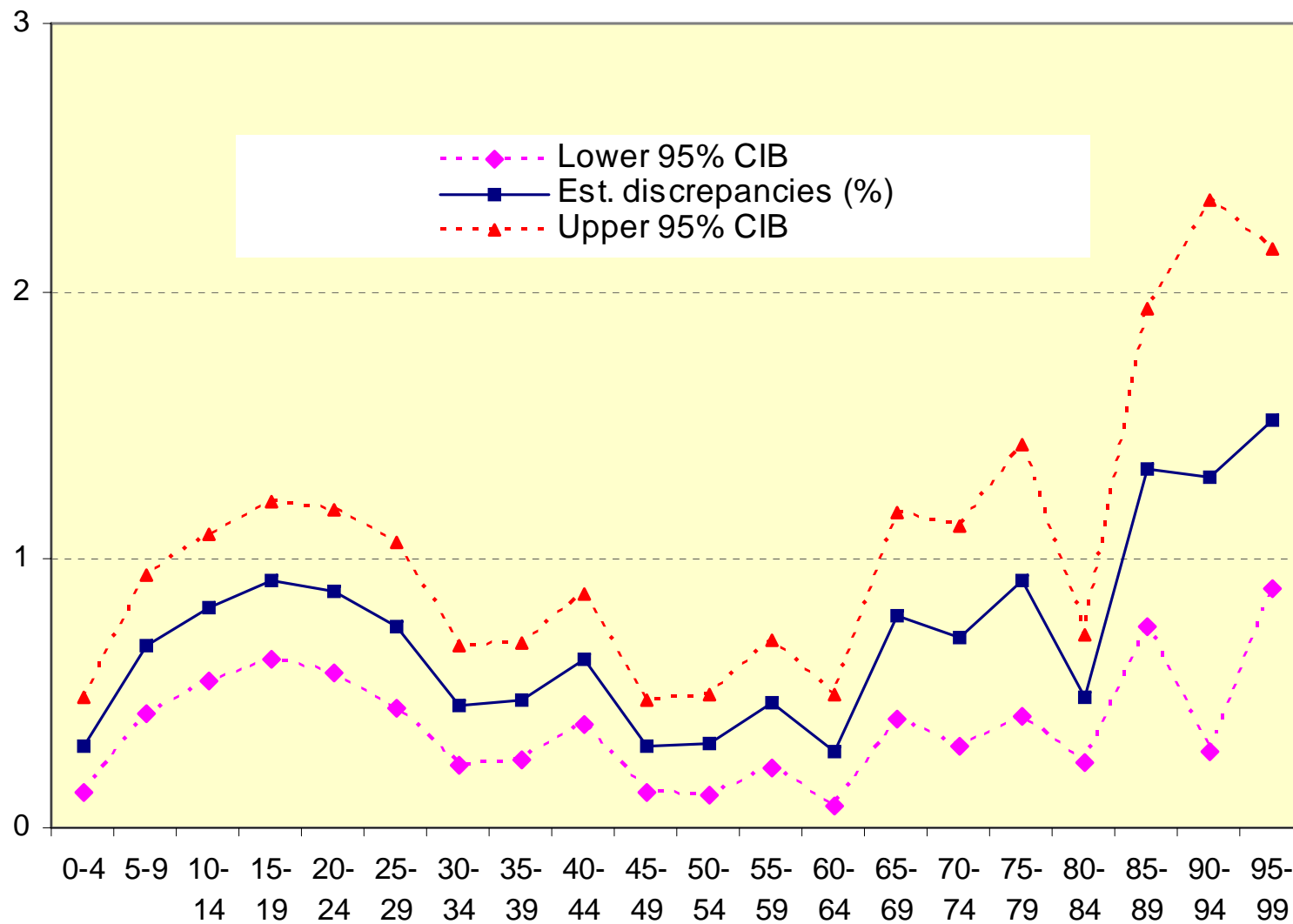
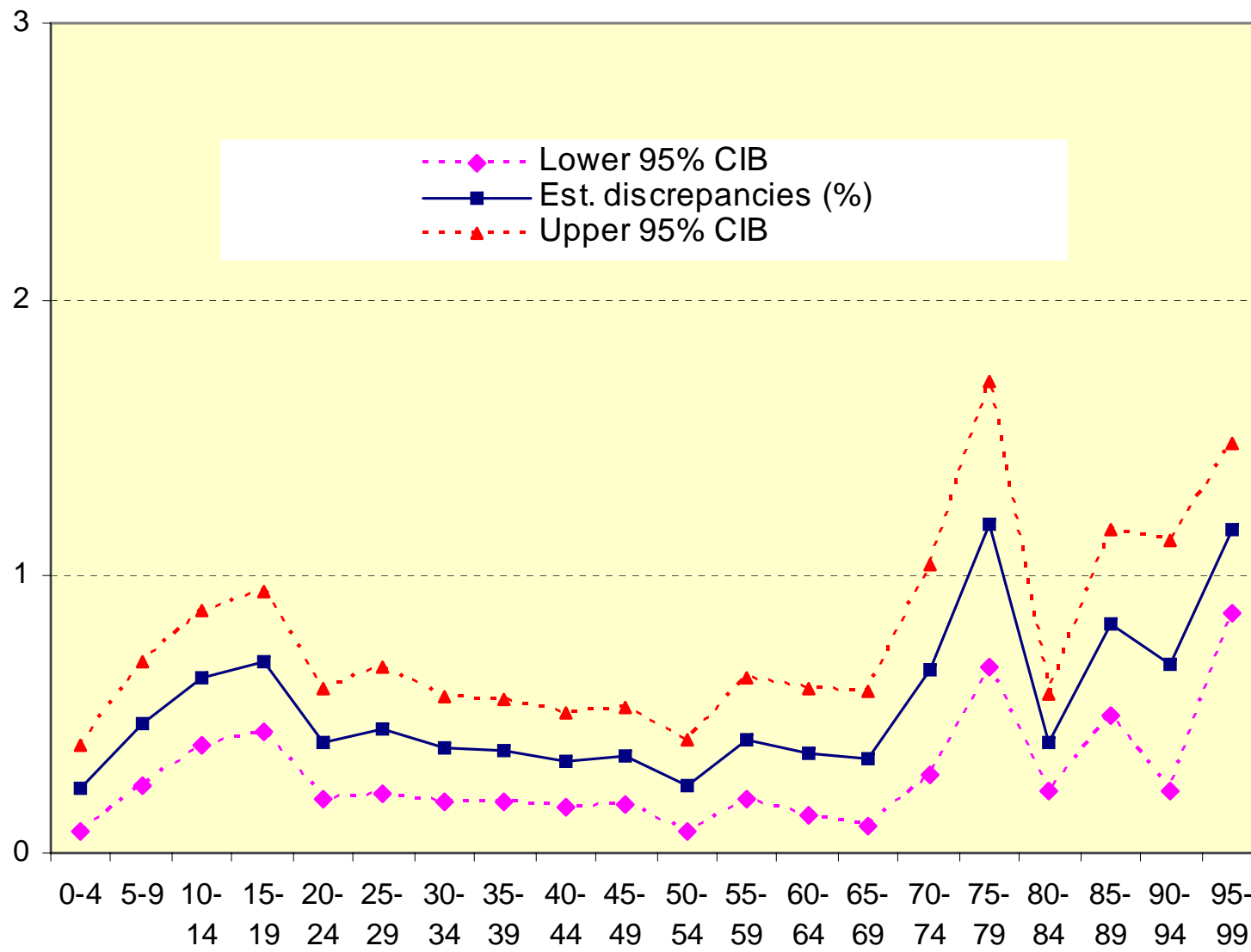
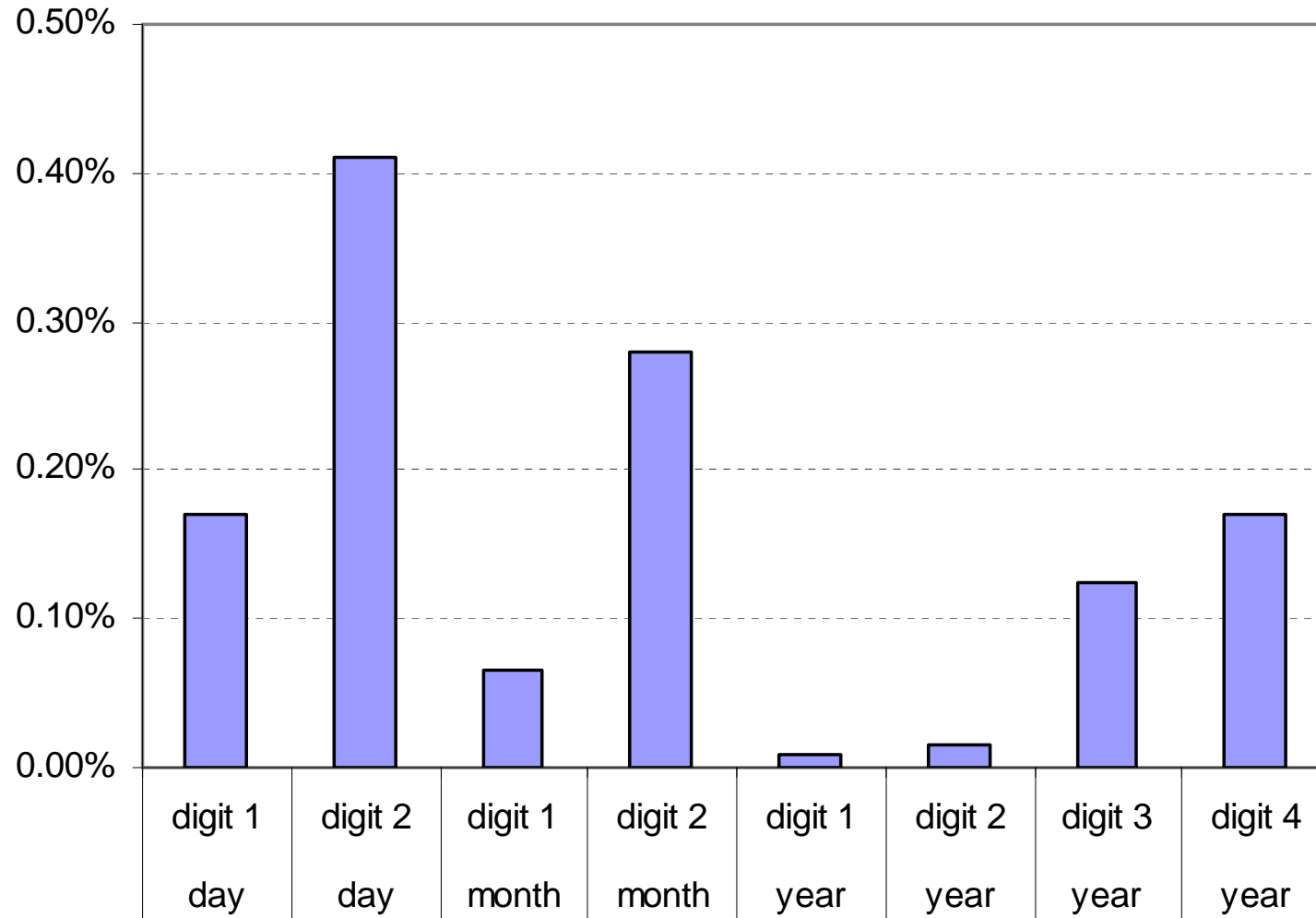


Figure 2B Females (%)



Estimated digit disagreement in the subject population (percent)



Conclusions for Census 2006 sex, age where neither was imputed (UR)

- Sex captured with great accuracy
- For single year of age, 99.5% agreement with independent operators
- For date of birth: single digit miscapture rates depend on the digit, which digit it is in date of birth, age, sex and other factors
- For more, email demography@stats.govt.nz

Figure 1A Males: estimated number of single year of age discrepancies

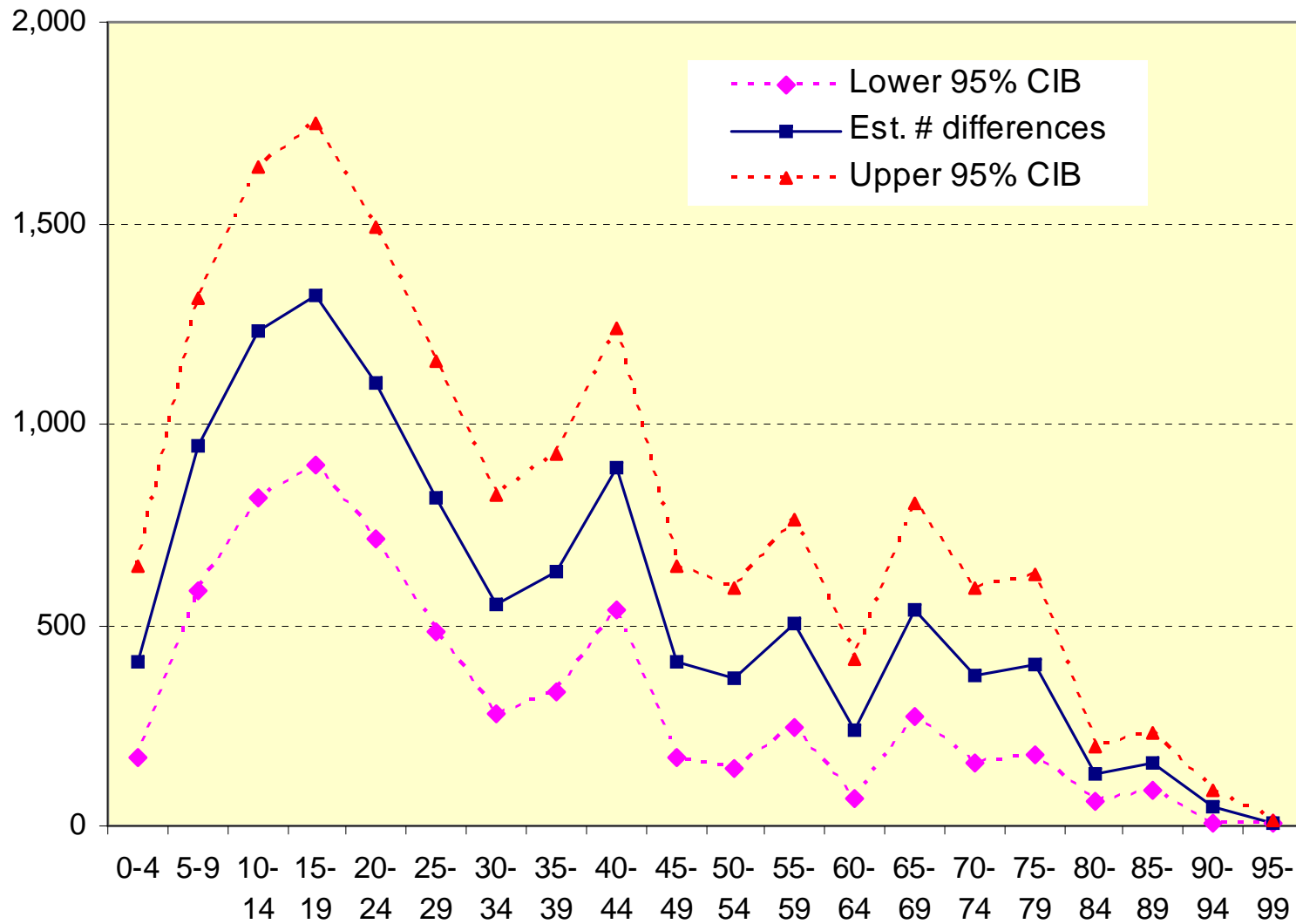


Figure 1B Females: estimated number of single year of age discrepancies

