Trends in age at marriage in Africa. Are census and survey data comparable?

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Introduction

- Development of national surveys and censuses in Africa since the 1960s
- Paradox:
  - Several hundred of demographic operations
  - Rarely included in a systematic analysis to describe long-term trends

- Underdevelopment of comparative analysis using different sources. Why?
  - the topic
  - accessibility of data
  - comparability
- This presentation: comparability of data to describe levels and trends of women’s age at firt marriage

Age at first marriage for women

- Information provided by most of the surveys and censuses :

  marital status by sex and age at the time of the survey/census

  →% never-married by age

  → **Median age at first marriage**

- More reliable than retrospective data
- Possible bias:
  - ➢ estimation of age according marital status
  - ➢ definition of marital status

→ Is the comparability of sources good enough to describe trends in female age at marriage?

Two questions

I. Comparability of the cross-sectional data from censuses and national surveys

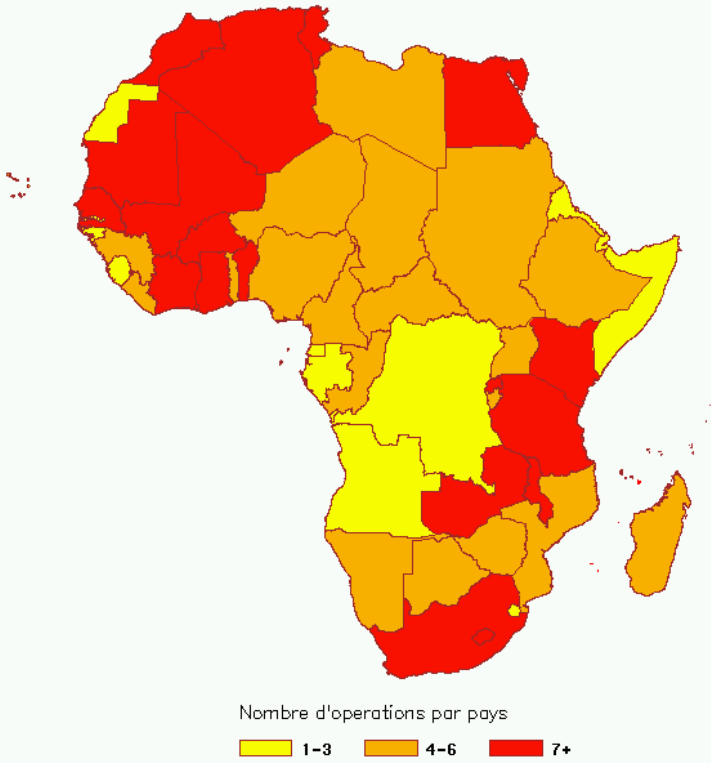
II. Patterns of bias

Indicator: Median age at first marriage, according % never-married by age (5-years groups)

I. Comparability of censuses and national surveys

1. Data

- ✓ Table on marital status by sex and age (5y)
- ✓ 318 statistical operations, conducted in 55 African countries, 1950-2005
  - 147 censuses, 171 surveys (88 DHS)



5,8 opérations en moyenne

Au moins 4 opérations : 42 pays
Au moins 7 opérations : 20 pays

Focus for the comparison

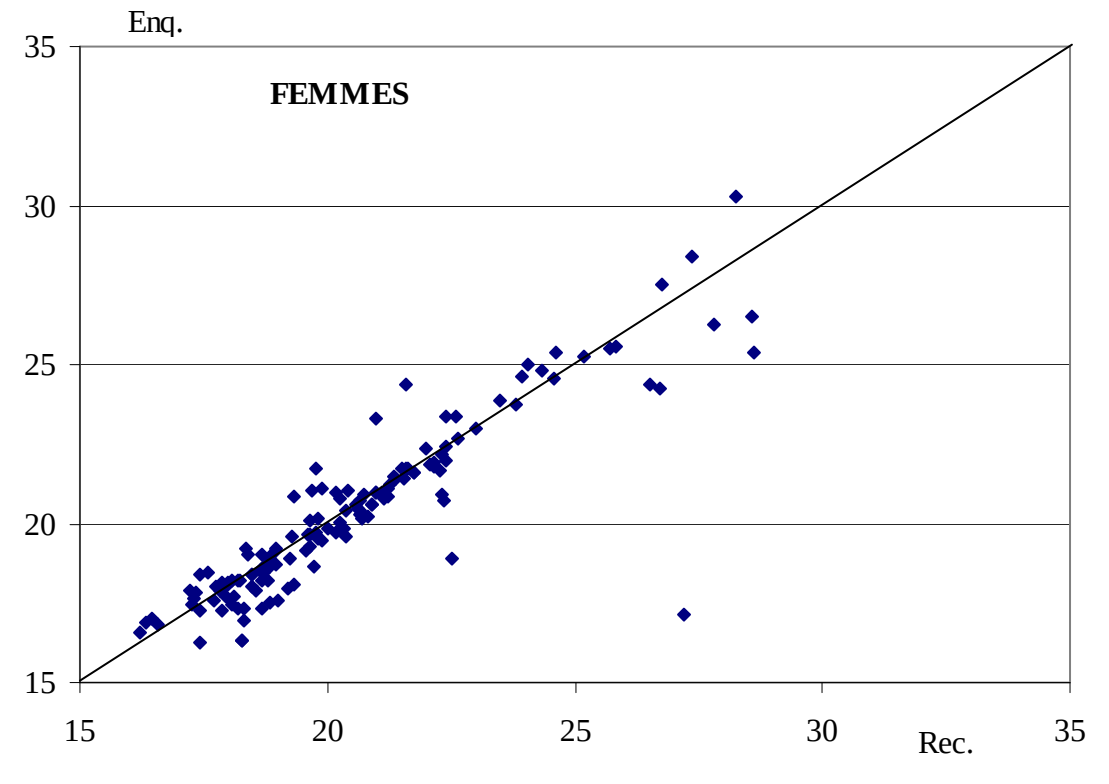
38 countries with 2 time series (censuses & surveys) which intersect (at least 1 point)

267 statistical operations (113 census, 153 surveys)

140 Points of comparison/intersection
(1 estimation for each original survey/census opposed to 1 estimation by interpolation from the adverse serie)

2. Comparison between estimates from censuses and surveyes

Median age at first marriage



Des écarts contrastés entre l'Afrique du Nord et l'Afrique au Sud du Sahara

Ecart = estimation rec. – estimation enq.

	Ecart <(-0,5)	Ecart ± 0,5	Ecart > 0,5 an
Afrique du Nord	36%	61%	3%
Afrique Subsah.	10%	65%	25%

3. Comparison between trends

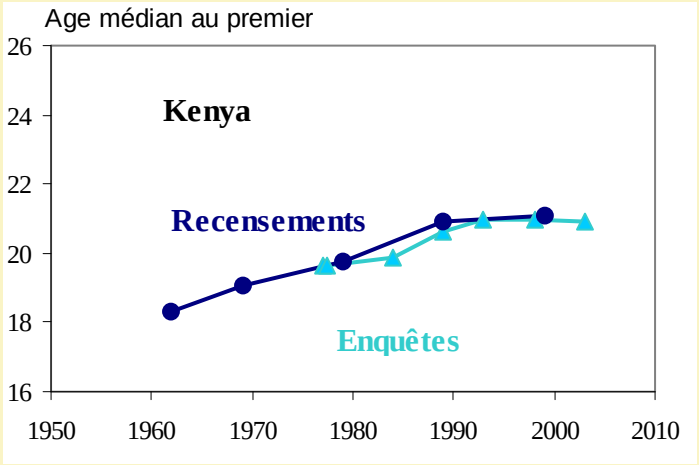
- Consistent series: 27 countries (70%)

  Ecart inférieur à 0,5 an, tolérance de divergence ponctuelle limitée (max de 2 points d'écarts supérieur à 0,5 an, dont au plus un point d'écart sup. à 1 an)

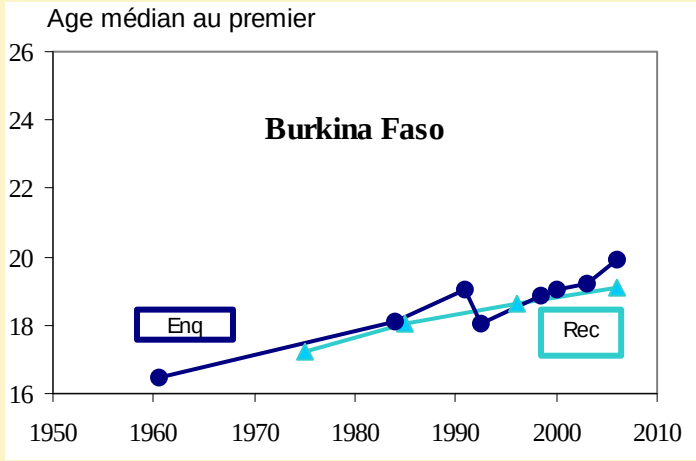
- Series with inconstencies: 11 pays

Consistent series (70% - 27 countries). Examples of countries

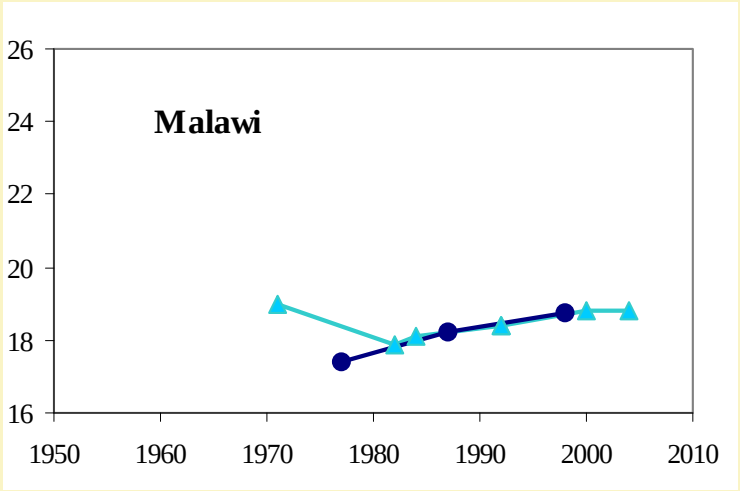
a. L'écart entre les 2 estimations ne dépasse jamais 0,5 an



b. Un seul point d'écart supérieur à 0,5 an mais ne dépassant pas 1 an



c. Au maximum 2 points d'écart supérieur à 0,5 an, l'un d'entre eux pouvant dépasser 1 an



a. 11 countries
b. 8 countries
c. 8 countries

Series with inconsistencies. Two main patterns (30% - 11 countries).

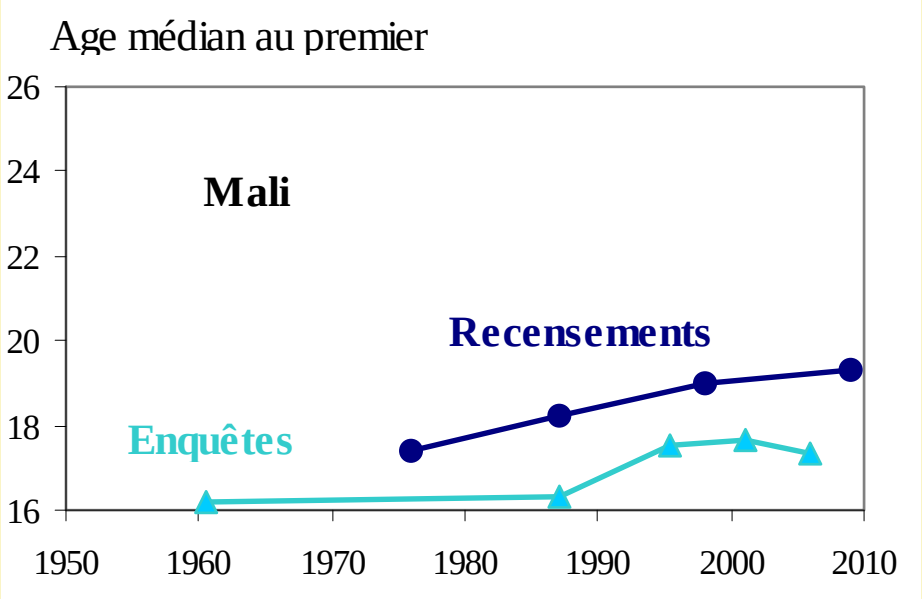
- Arab countries (4 countries including Soudan & Mauritanie): age at marriage from *survey is higher* than the estimate from census

- Subsaharan Africa (5 pays): age at marriage from *census is higher* than the estimate from survey

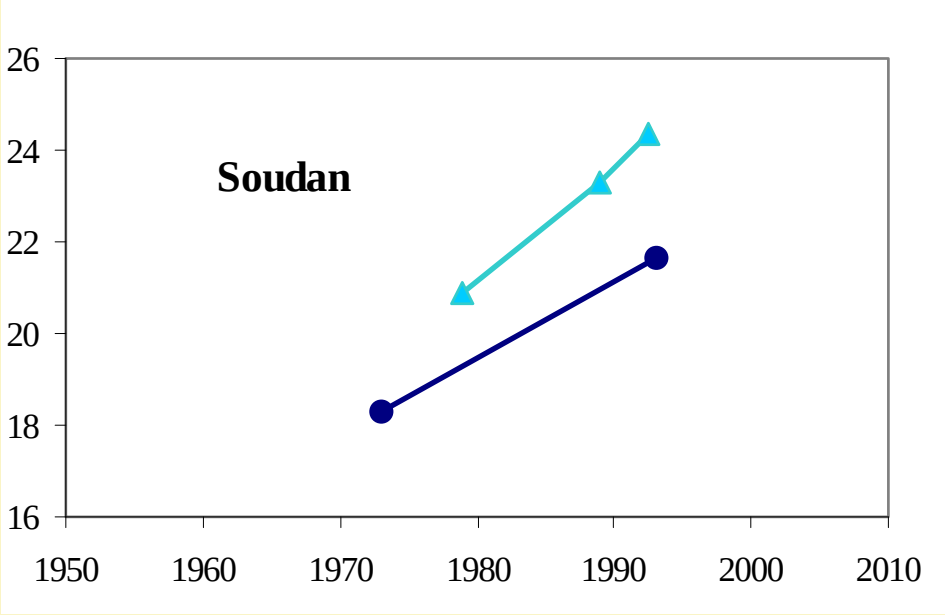
- (mixed – 2 countries)

Series with inconsistencies. Examples

a. Tendance des écarts : l'âge médian tiré des recensements est supérieur à l'estimation des enquêtes



b. Tendance des écarts : l'âge médian tiré des recensements est inférieur à l'estimation des enquêtes



II. Patterns of bias, causes of bias

Possible causes of difference between census and survey estimations

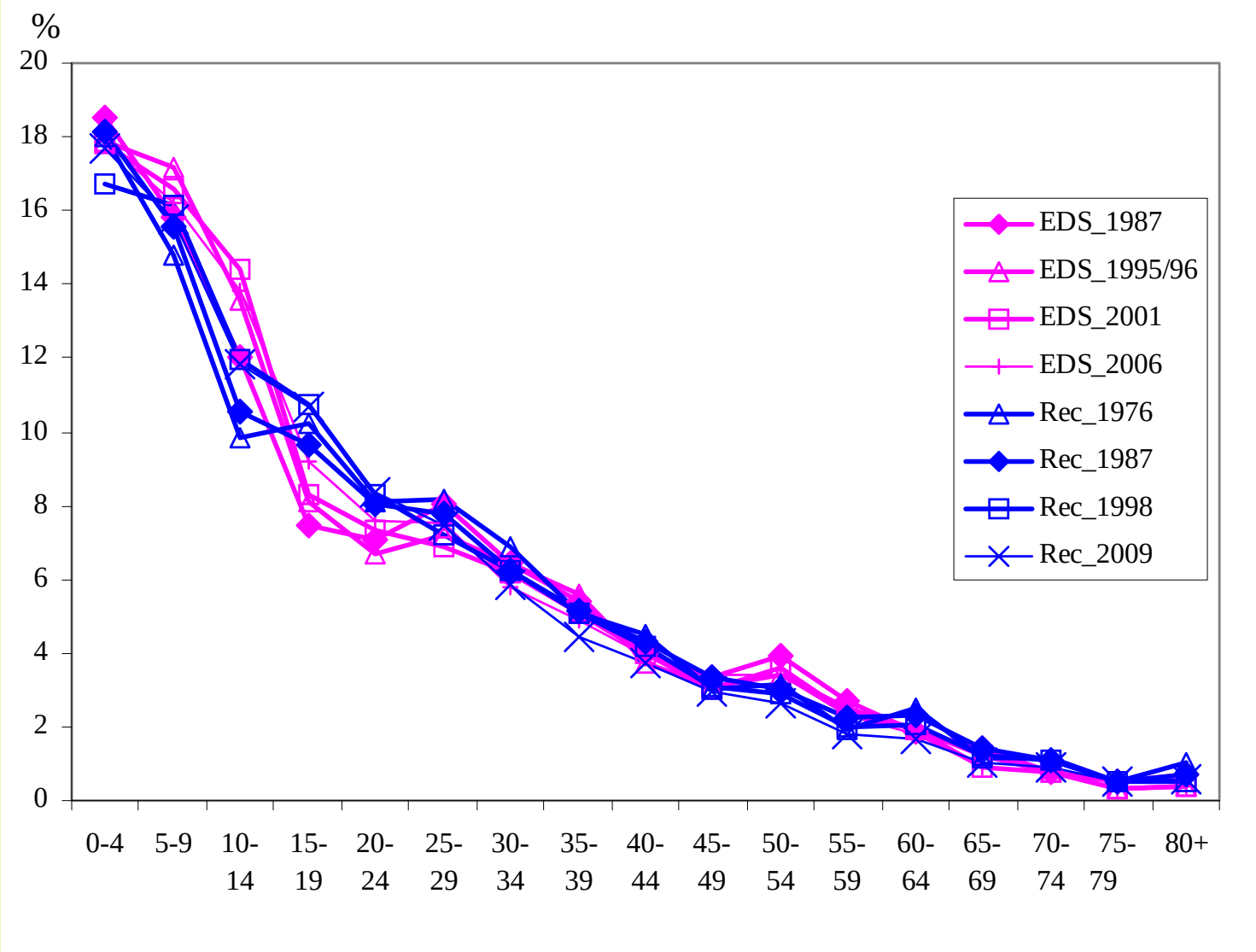
- Census covers the whole population, survey concerns a sample

→ Possible distortion of the sample:

1) If there are errors in the criterion for eligibility, associated with the marital status.

   → Eligibility of age 15-49. Age underestimation of young single women (<15 instead 15-19)
   → Underestimation of the % never-married at 15-19
   → Underestimation of the median age at first marriage by the survey

Répartition de la population féminine du Mali selon l'âge



→ Possible distortion of the sample:

2) If the eligible women who escape to the individual survey are more often single

→ Underestimation of the % never-married
→ Underestimation of the median age at first marriage by the survey

- The woman is the respondant for the individual survey, while the household head is usually the respondant for the census & household questionnaire

→ Higher quality of information from the individual survey (/less confusion single & never married)

→ Overestimation of the % never-married by the census

→ Overestimation of the median age at first marriage by the census

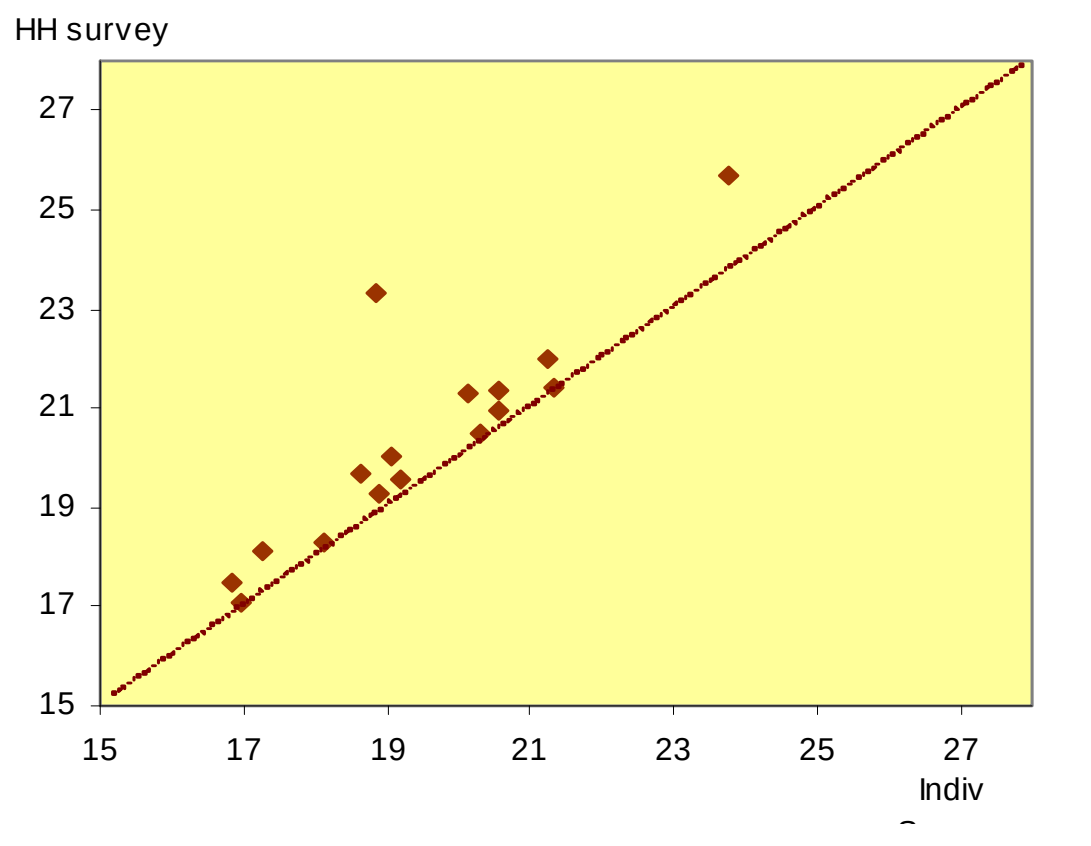
MICS-2. Registration of marital status in the household questionnaire and in the individual questionnaire

- 16 MICS surveys in SSA with both information (individual & household questionnaires)
- Not a real dual record (the interviewer can use and check the information on the HHquest)
- Possible inputs on the patterns of errors

Confirmation of the difference between estimations in the expected direction :

AFM_HH>AFM_IndQ

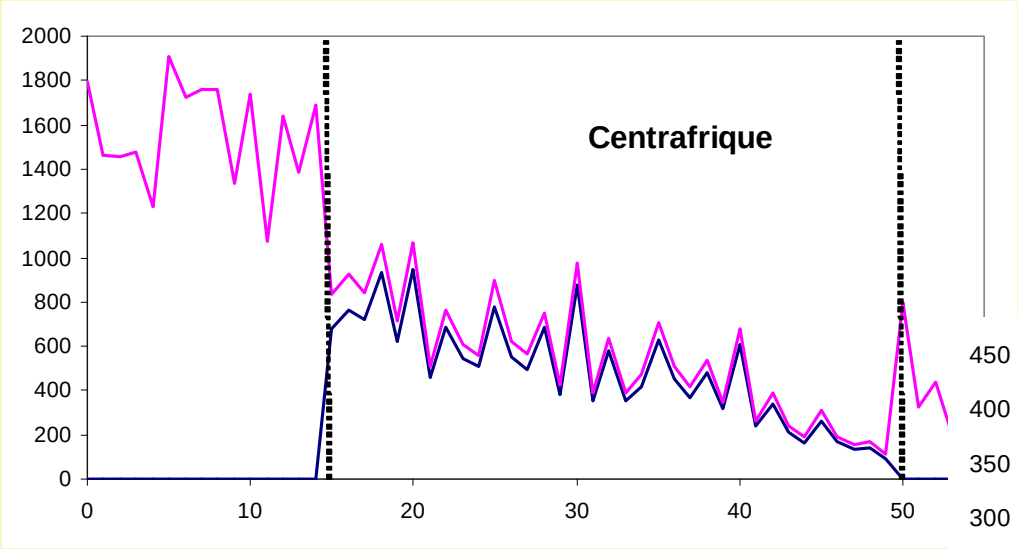
Median age at first marriage according the HH Quest & the IND Quest (MICS2, 16 countries)

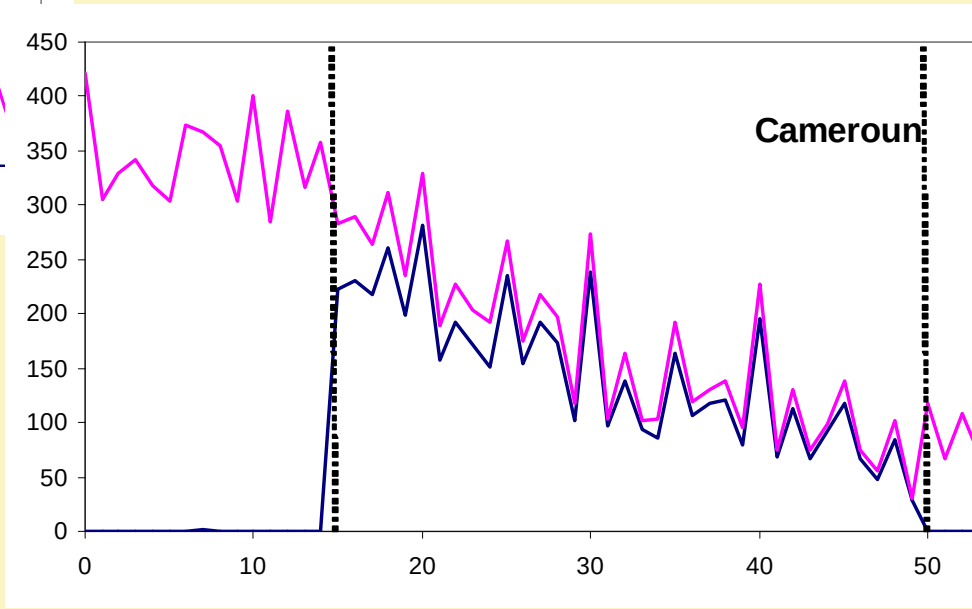


Confirmation of the different sources of errors

Distortion of the sample:

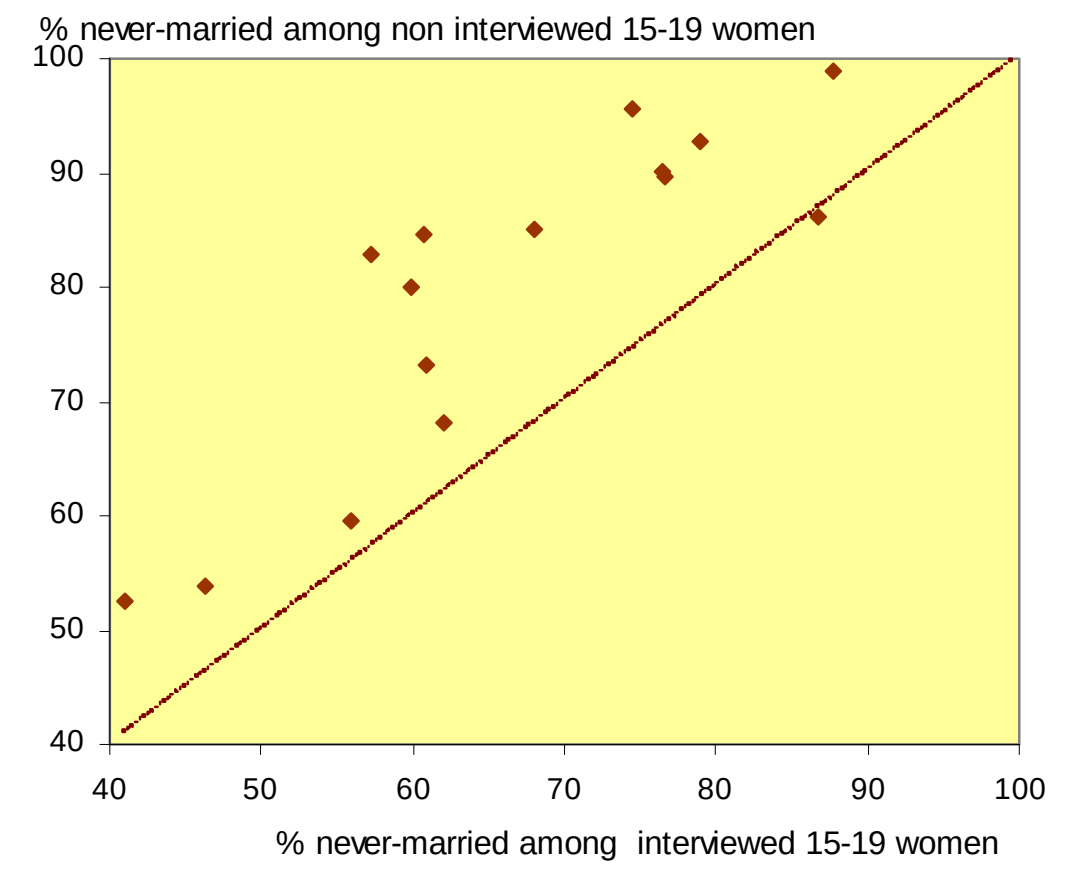
- Underestimation of the 15-19: 12/15 countries



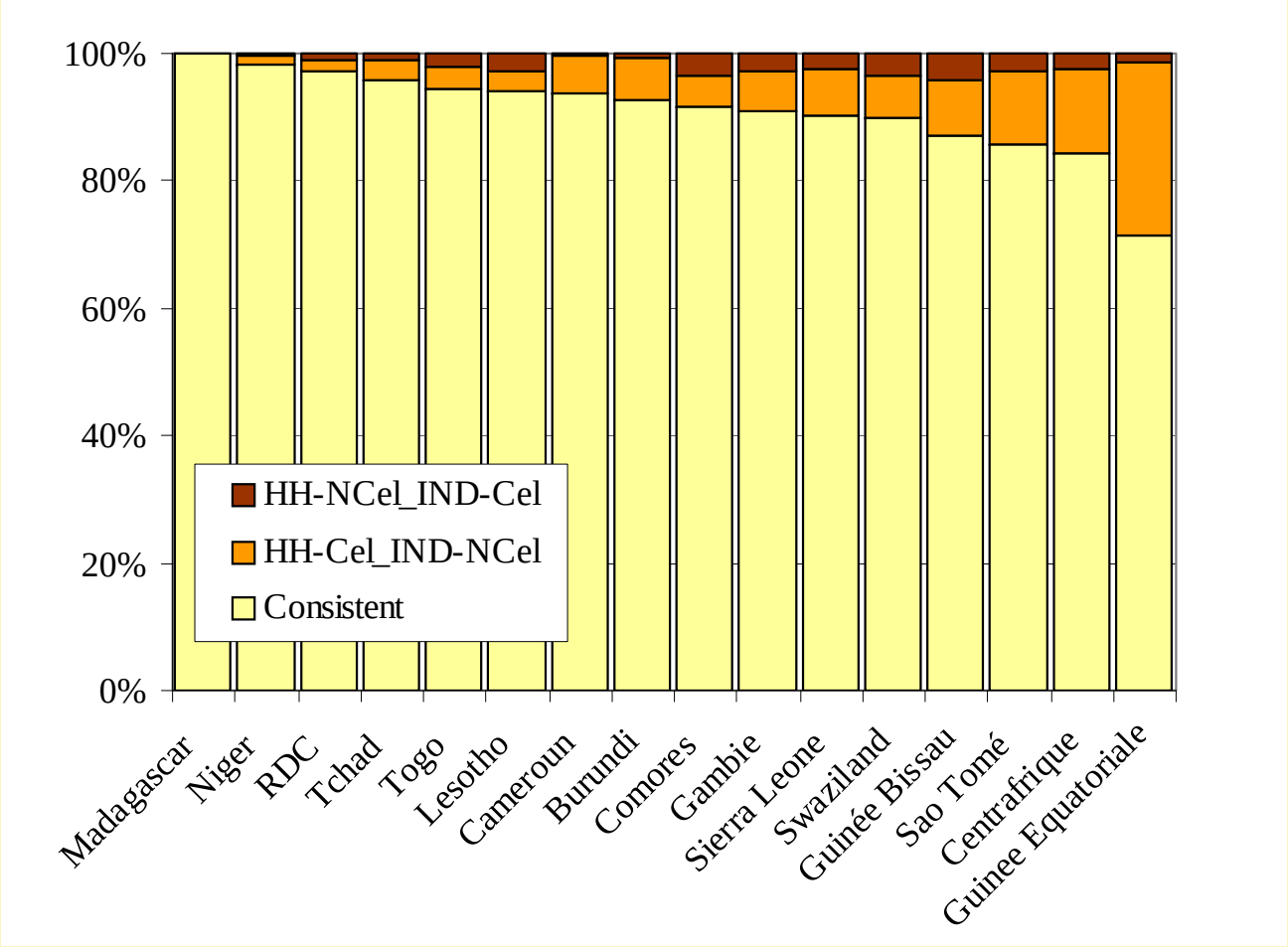


From HH_Quest to Indiv_quest

-- Loss of young women
-- Specially among never-married

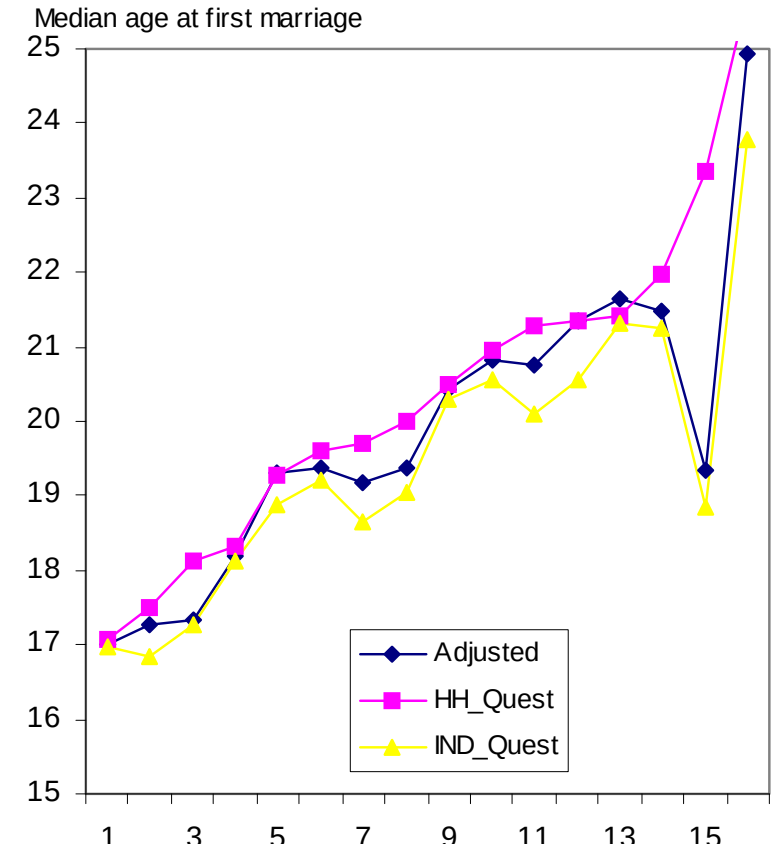


Report of marital status during HH and Indiv surveys. Women 15-19



Proxy of the « real » median age at first marriage: A revised estimation of the median age at first marriage, which includes :
--The marital status reported in the individual survey;
-- An adjustement of the sample (reintroduction of the non-interviewed women, revision of the structure by age).

The results show that this indicator is between the estimation given by the HHsurvey and the Indiv survey: no rule concerning a « better » estimation from the HH or Ind survey.



Conclusion

1. Comparability is OK in 70% of the case. Existing data deserves to be used and compared.
2. Patterns of inconsistencies.
   - Estimation from surveys are not necessarily better than estimation from census
   - Influence of the interviewer (bias in the selection of the population)