

Working hours: analysis of Italian LFS results versus administrative data and business survey

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The analysis on the Italian LFS variables on working time recently started due to:

- **the belief that after the renewal of the IT-LFS in 2004 the quality on these variables increased (but, is it the truth?)**
- **the interest in the IT NA unit on worked hours as an input measure (both regular and grey)**
- **the interest aroused by the FR-DE paper presented in Madrid**
- **the activities launched by the IT NA unit (a working group) to define the strategy for the new benchmark (2011) on occupation measurement (both people and hours)**
- **the availability of different sources and different skills in this working group, the prerequisite to reach integration and to bring in new ideas**

Overview:

- IT flow of questions on working time
- the results of an analysis similar to FR-DE, focusing on the eventual underreporting of absences due to annual and bank holidays
- the pilot test and the first results
- results from business survey on job vacancies and hours worked
- information from administrative archive on long absences due to parental leave and illness

IT flow of questions on working time

... after the part-time full-time module:

USUAL

HWUSUAL (hours usually worked)

HWMEAN4: if HWUSUAL don't know or very variable an additional question on the average of the worked hours in the last 4 weeks

DWUSUAL (day usually worked) – NEW!

REFERRED TO RW

HOURREAS splitted into 3 questions:

In RW did you work less or more than usual? Why more? Why less?

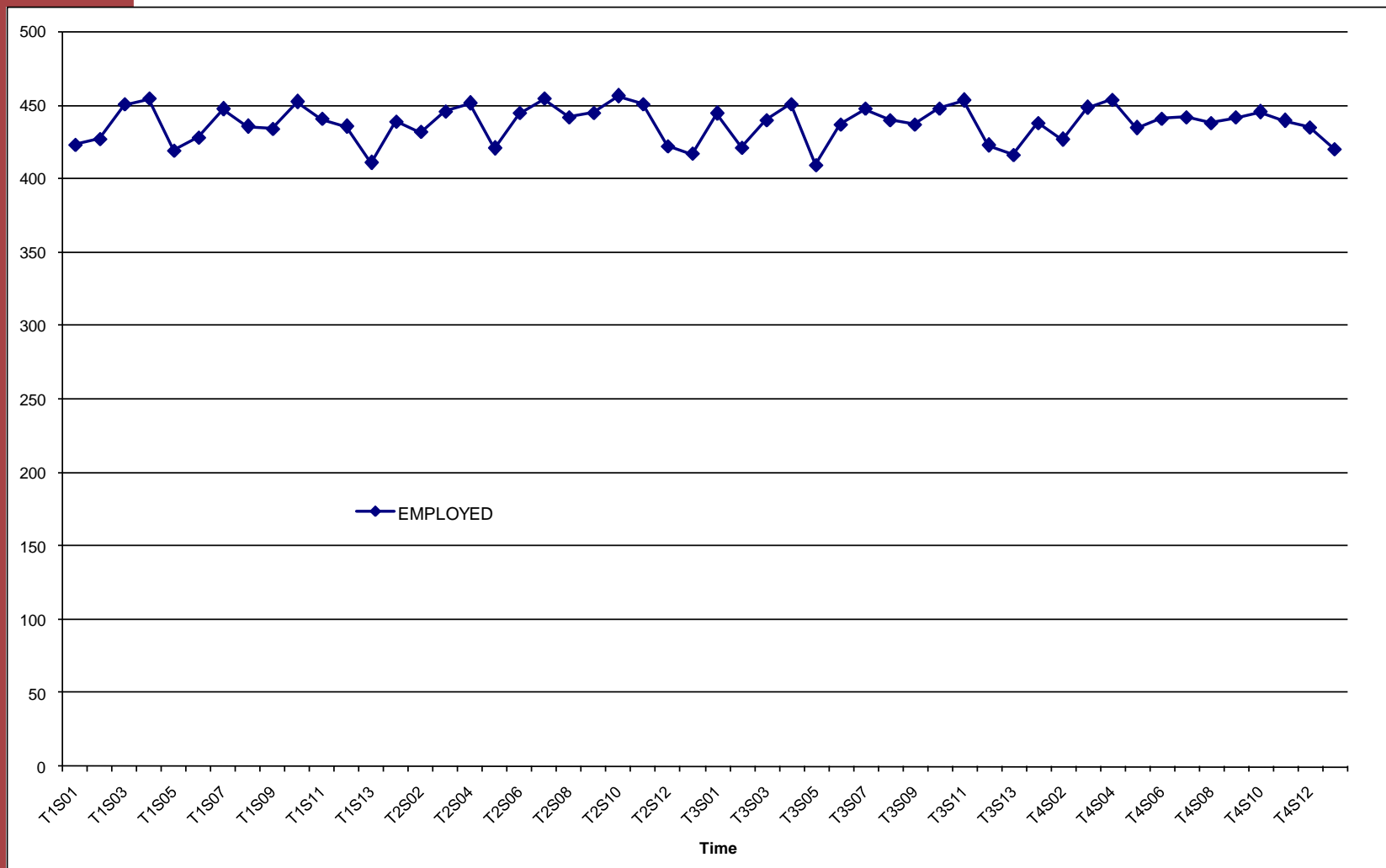
HWOVERP, **HWOVERPU**: 3 questions:

Did you any overtime (paid or not)? How many hours? How many are paid?

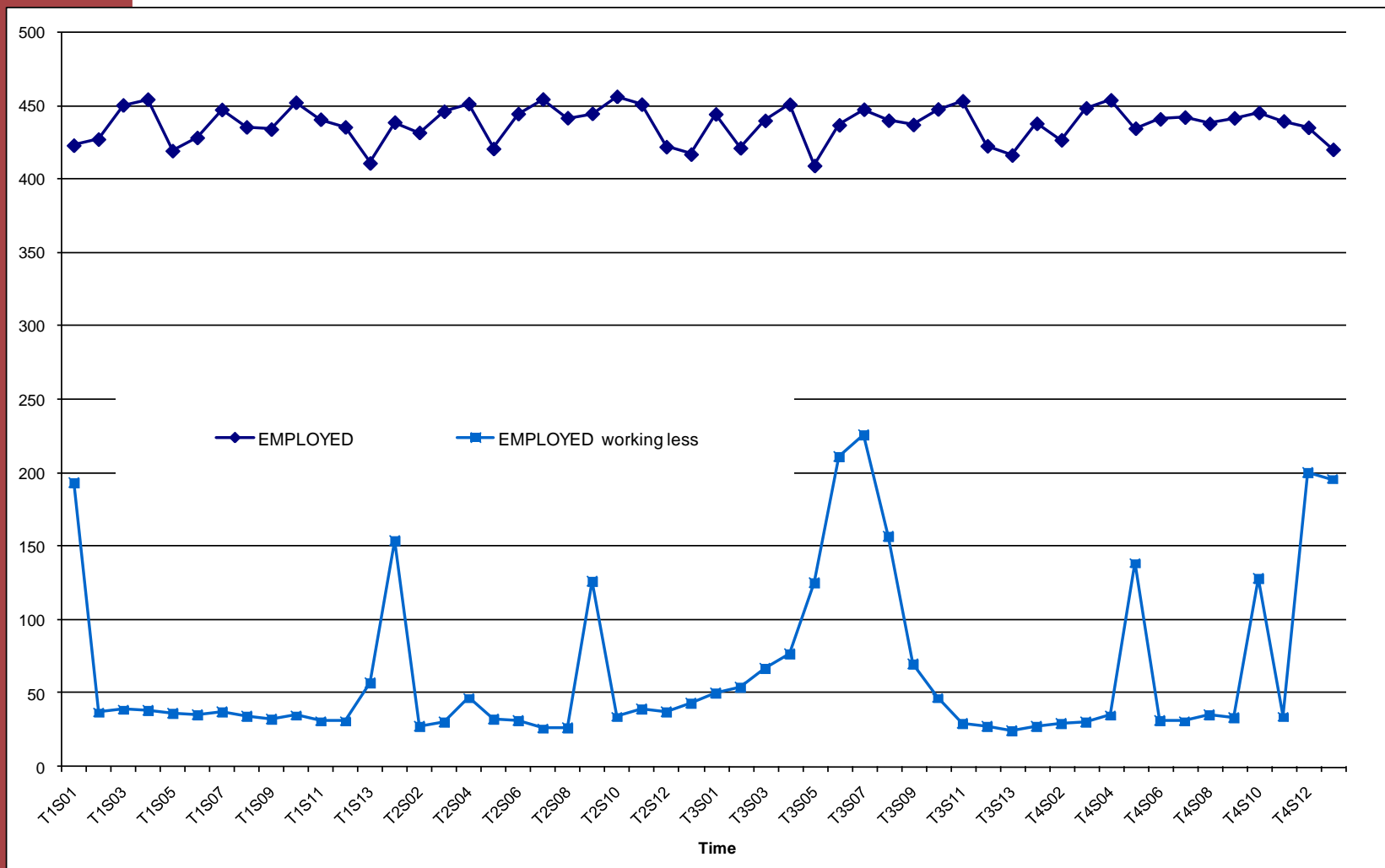
HWACTUAL

...**WISHMORE** and **HWWISH** (in IT referred to the RW)

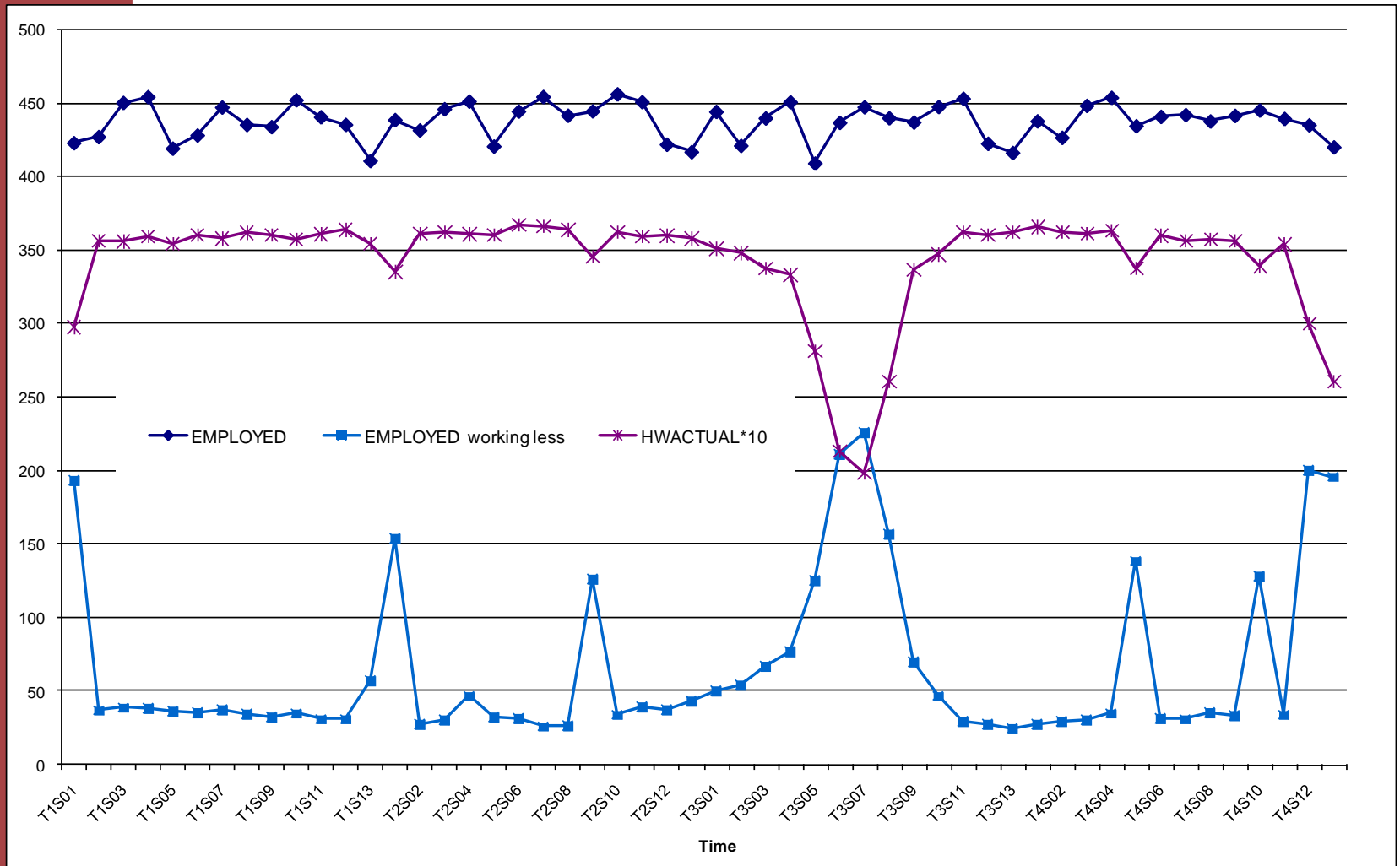
IT results as for the FR-DE analysis



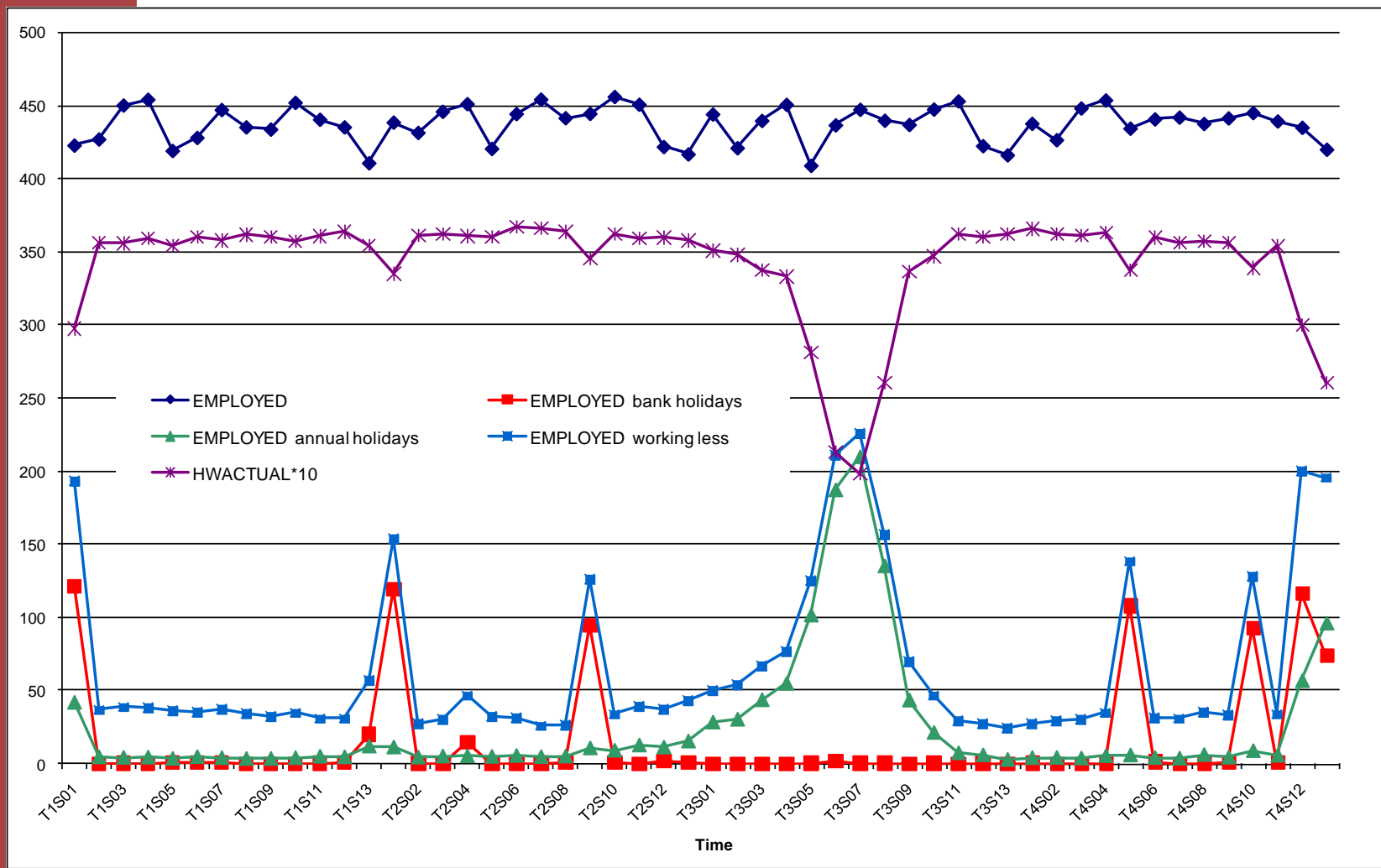
IT results as for the FR-DE analysis



IT results as for the FR-DE analysis



IT results as for the FR-DE analysis

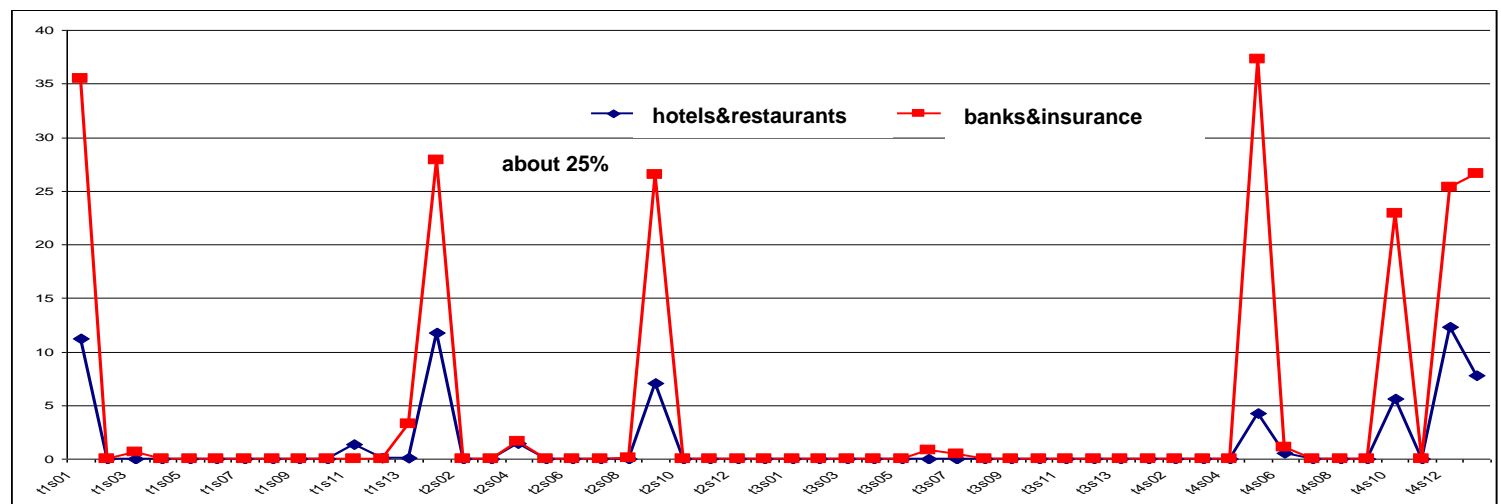


Bank and annual holidays in the 52 weeks – year 2010

...bank holidays

Focusing on bank holidays (we can easily verify the dates of the IT holidays):

- no evidence about the effect of lag between RW and interview week
- (surprisingly) CAPI worse than CATI
- weak effect of proxy
- as for the activity sectors: secondary and tertiary show a more evident pattern than agriculture (OK!)
- but it seems not enough: comparing in the tertiary sector banks&insurance with hotels&restaurants



...annual holidays

Focusing on annual holidays (stronger impact)

Similarly to FR-DE we estimated the number of days yearly not worked due to annual holidays by each full-time employed:

total number of not worked hours (BH) per week: 37171

(usual-actual+overtime)

: employed full-time: 19263

* Number of weeks: 52

= number of not worked hours (BH) per year per each full-time employed: 100.3

: 8 (hp daily working hours)

= number of not worked days (BH) per year per each full-time employed: 12.5

...too few?

... «bridges»

Someone declares that was absent due to a bank holiday, but the number of not worked hours is significantly lower (>10): probably he combined 1 or more annual holidays with the bank holiday

We tried to recuperate these additional annual holidays according to the same computation as before

We recuperate 0.5 additional not worked days (BH) per year per each full-time employed

$$12.5+0.5=13$$

...still too few?

The pilot test

Goal: to improve the memory of absences in the RW

When: the 1st week of november (has 1 bank holiday)

How: We simply add a reminder before passing to the questions referred to the RW:

«Next questions refer to the hours worked «LAST_WEEK» that is the week «from Monday... to Sunday...». Please remind that «LAST_WEEK» there was the 1st November holiday and consider also eventual annual holidays, illness, overtime...

Results have been satisfactory:

	normal week sample	vs pilot
•Weekly worked hours:	28.6	26.2
•% less hours:	54.1	76.9
•% bank holidays:	43.7	66.2
•% annual holidays:	3.2	5.2

January 2013 results

In the 1st week of January, 2013 compared with 2012 (both have 1 bank holiday):

	2013	vs	2012
• Weekly worked hours:	23.9		27.0
• % less hours:	60.3		49.6
• % bank holidays:	32.2		26.9
• % annual holidays:	21.9		17.2

Similarly as before we estimated the number of days not worked in January due to annual holidays by each full-time employed (we used monthly weights), considering also the «bridge» effect:

1.4 days in Jan 2013

1.0 days in Jan 2012

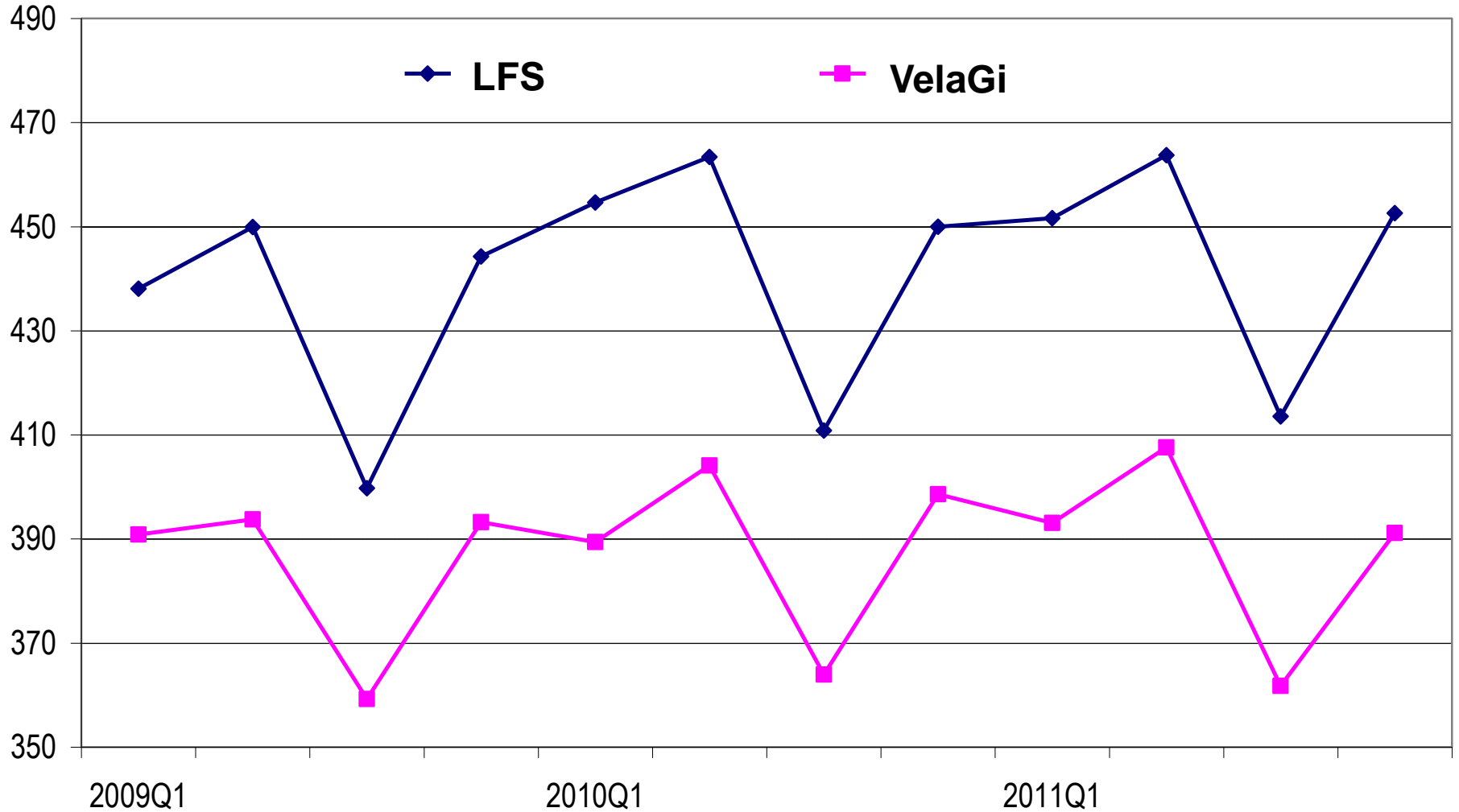
Results from business survey on job vacancies and hours worked VelaGi

Considering only employees, in firms with more than 10 employees, NACE rev.2 B-N, in 2009-2011:

- the total number of worked hours per each employees per quarter in LFS is significantly higher than VelaGi
- the difference is about 1.5 weeks per quarter
- the seasonality is the same, differences are constant over time
- no differences by activity sector, except Horeca
- trying to take into account potential bias due to proxy and lay-off in LFS and job on call in VelaGi (that is eliminating them) no great gain: differences reduce of about 5-6 hours per quarter

Results from business survey on job vacancies and hours worked VelaGi

Quarterly worked hours per each employee



Results from business survey on job vacancies and hours worked VelaGi

How to interpret these differences?

- Overestimation of worked hours in LFS due to underreporting of absences?

Grey hours? Hours actually worked but not paid or irregularly paid

- Black employment? Irregular employee, collected by LFS not by VelaGi (hp that their working hours is higher)

Or....

Information from administrative archive

Useful information can be obtained from the administrative archive taken by INPS (social security institute); information can be compared over the RW

We can focus on parental leave and long illness, restricting to employees matched with the archive, excluding proxy (year 2010):

- 50% of those who resulted in parental leave in the RW in INPS declared $0 < HWACTUAL = HWUSUAL$ in LFS
- 10% of them declared $HWACTUAL = 0$ or $HWACTUAL < HWUSUAL$ but the reason is not parental leave
- 45% of people in illness in INPS declared illness in LFS
- 30% of illness in LFS does not correspond to illness in INPS

Conclusions

- The analysis on actually worked hours coming from the LFS and the comparisons with other sources confirm the initial hypothesis that Italian LFS overestimates actually worked hours due to underreporting of absences.
- The introduction of the remind message to help the respondent to remember if he was absent during the reference week (in particular due to bank holidays) has produced satisfactory results.
- Further efforts will be dedicated to this issue in the future, to improve the detection of absence events.

Conclusions

Thanks for your attention