

NEWSPELL: Easy management of complex spell data

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07.06.2013

Who might use NEWSPELL?

Cutting off spells

Combining Spells

Filling in Missing Information

What else?

Outline

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Who would benefit from using NEWSPELL?

- ▶ Users unfamiliar with data management

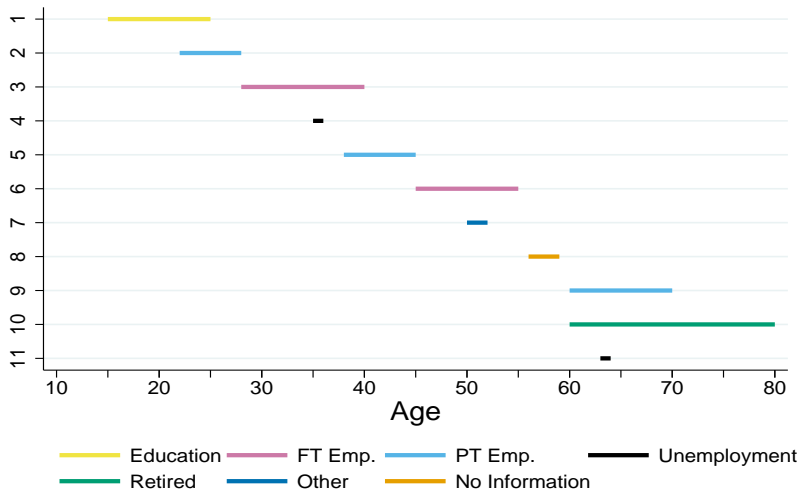
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- ▶ Users unfamiliar with data management
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- ▶ Double checking own code

An example of complex spell structure



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- ▶ Cutting off overlapping spells according to a ranking
- ▶ Different states at the same time might indicate a new type of spell
- ▶ Missing information can be filled in with information from before and after the spell

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Problem with overlapping spells?

- ▶ Some methods require one state per time unit: e.g. sequence analysis

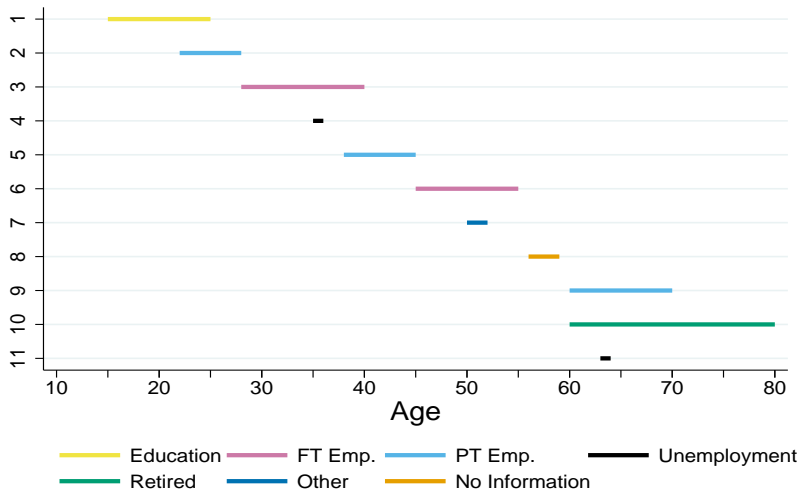
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- ▶ Some methods require one state per time unit: e.g. sequence analysis
- ▶ Overlapping spells create a problem
- ▶ `newspell rank` command can deal with the problem

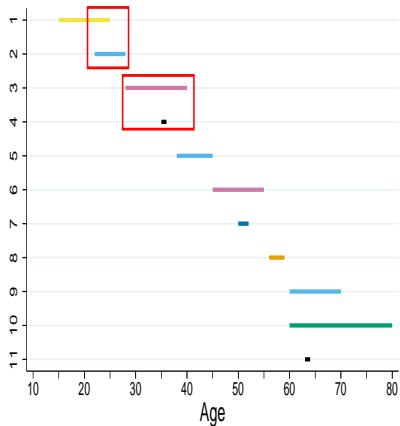
One individual's employment status over the life course



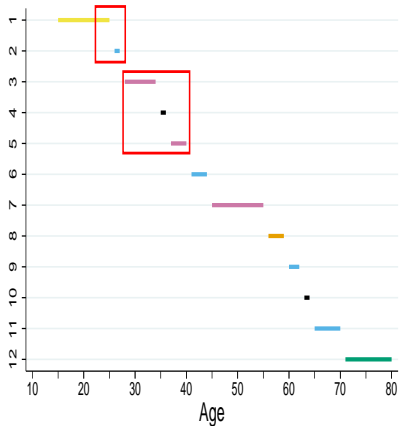
NEWSPELL RANK

```
newspell rank, rank(4,1,2,3,5,6,99) /*  
*/ id(pid) stype(stype) snumber(n) begin(begin) end(end) /*  
*/ nspellnr(n2) sort(begin)
```


One state per time point remains



— Education — FT Emp. — PT Emp. — Unemployment
— Retired — Other — No Information



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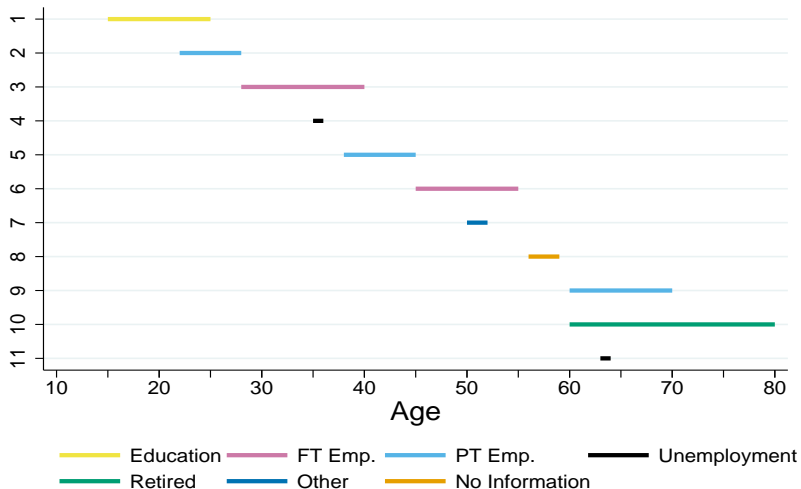
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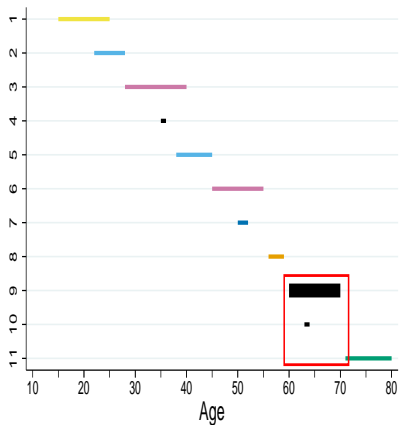
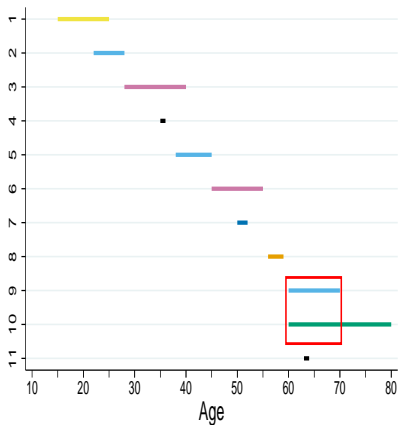
Overlaps might indicate a new spell type



NEWSPELL COMBINE

```
newspell combine, combine(3 5) ncode(7) /*  
*/ id(pid) stype(stype) snumber(n) begin(begin) end(end) /*  
*/ nspellnr(n2) sort(begin)
```

Two overlapping spells form one new spell



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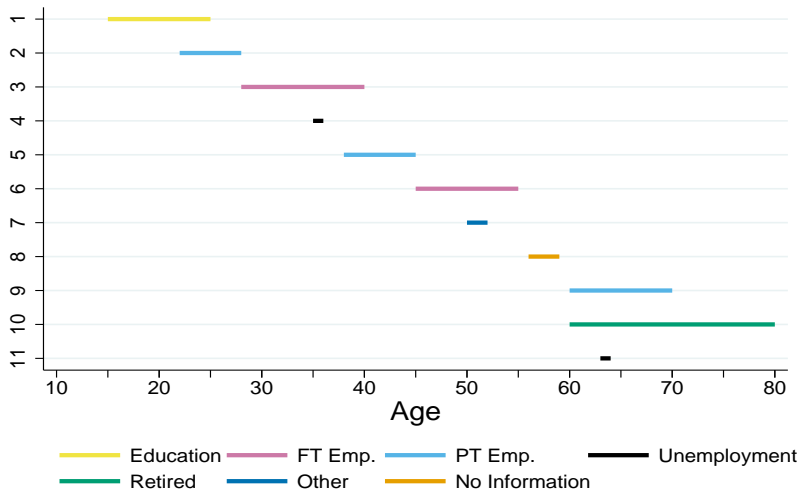
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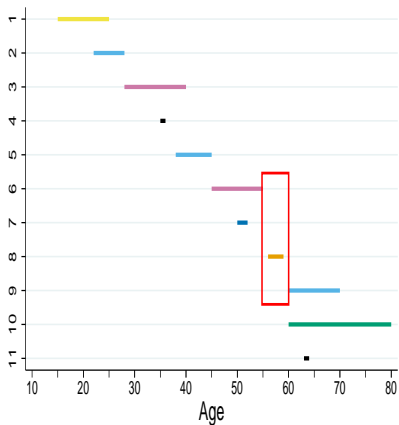
For some periods information is missing



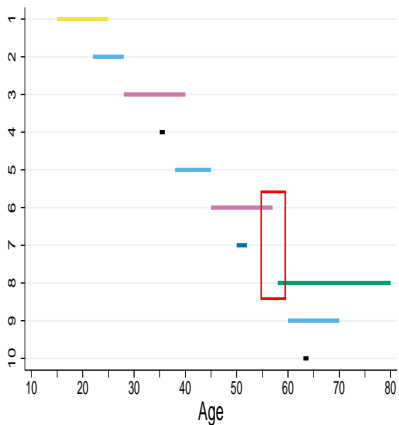
NEWSPELL FILLIN

```
newspell fillin, fill(99, both) rank(5,3) /*  
*/ id(pid) stype(stype) snumber(n) begin(begin) end(end) /*  
nspellnr(n2) sort(begin)
```


MI spell is filled from previous spell



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NEWSPELL can even do more!

NEWSPELL can also:

- ▶ Transform spell into long/wide format (overlapping or not)
`newspell tolong, newspell towide`

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- ▶ Transform spell into long/wide format (overlapping or not)
`newspell tolong, newspell towide`
- ▶ Different spell types can be merged together
`newspell merge`

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- ▶ BETA release

Thanks to Sebastian Beil, Ruhr-Universität Bochum, for
testing NEWSPELL!

What are your questions and
comments?