What's new in LEHD Snapshot S2014

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Disclaimer

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The LEHD Infrastructure Files ("Snapshot")

- ▶ Big-picture overview in Abowd et al. (2006, 2009)
- ▶ Defining outputs: Quarterly Workforce Indicators (QWI) and to some extent the LEHD Origin-Destination Employment Statistics (LODES) data
- ► Files are pulled from LEHD production archives, several research-related improvements are made to the files, fixing minor data inconsistencies or updating documentation.
- ► Do not contain any information related to the disclosure limitation measures used in the QWI



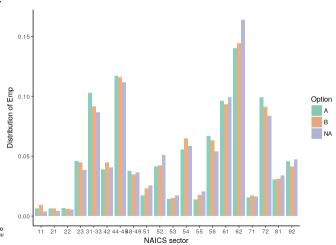
Availability by MOU

Of the 51 states and DC, as of 2017-09-08, 12 have chosen Option A:

Option		Freq
A	Data available subject to CB ap-	12
	proval and pooling	
В	Data available subject to state	32
	approval	
	of which frequently approve	13
	projects:	
NA	Other	7



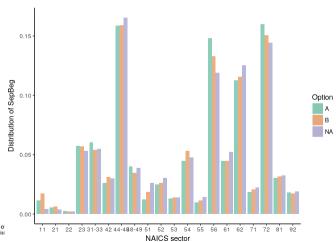
By employment





Availability Representativeness Take-away

By separations





Representativeness

Is the sample of states representative = state's choice of Option A (M) correlated with any observable characteristic (Y):

$$p(M|Y,\theta,\psi) = p(M|\psi)$$

where θ are parameters associated with the data generating process, and ψ are parameters associated with the choice of Option A. If not, then missing states are "Missing Completely at Random (MCAR)".

Generalisation
Replace "Option A" with "is part of my research study"



MCAR by employment

	Option
Constant	0.888***
	(0.094)
Emp	0.295***
	(0.068)
Akaike Inf. Crit.	1,082.799
Notes:	***Significant at the 1 percent level.
	**Significant at the 5 percent level.



^{*}Significant at the 10 percent level.

*Significant at the 10 percent level.

MCAR by employment (b)

	Option
Constant	0.198***
	(0.076)
Emp	-0.124***
	(0.035)
Akaike Inf. Crit.	1,400.767
Notes:	***Significant at the 1 percent level.
	**Significant at the 5 percent level.



MCAR by separations

Option
0.979***
(0.089)
0.204***
(0.058)
1,093.073
***Significant at the 1 percent level. **Significant at the 5 percent level. *Significant at the 10 percent level.



Availability Representativeness Take-away

MCAR by both

N/	***C':C'
Akaike Inf. Crit.	1,083.793
SepBeg	-0.104 (0.101)
Emp	0.403*** (0.130)
Constant	0.884*** (0.094)
	Option



^{***}Significant at the 1 percent level.

^{**}Significant at the 5 percent level.

Representativeness

Approximately...

- ► The snapshot is *approximately* representative (eye-ball test),
- ▶ ... but that statement does not hold up to an econometric test
- ► To apply this particular criterion to your specific paper, see github.com/larsvilhuber/snapshot-availability

The following components have changes

- ► Employment History Files (EHF): earnings at all firms for workers
- ► Employer Characteristics File (ECF): time-varying characteristics for firms, including industry and QCEW employment
- Geocoded Address List (GAL): geo-coded addresses of firms from a variety of sources
- ▶ Office of Personnel Management (OPM): earnings records for federal workers
- ► **QWI(-SEINUNIT)**: pre-computed job market indicators (separations, job creation, etc.) at the establishment level, by worker demographics



EHF: New National Indicator of Employment

Does a worker have covered employment in any state?

Construction

For each PIK i, in each EHF state file s, identify the quarters q in which at least \$1 was earned in any job j:

$$orall i, orall q, orall s: extit{pos_earn}_{isq} = 1 ext{ if } \left(\sum_{\substack{j: J(i,q) = 1 \ \land J(s,q) = 1}} ext{earn}_{ijq}
ight) \geq 1$$

where J(i,q) indicates that i worked for j in q and J(s,q) indicates that j is located in s in q. Count the **number** of states (not jobs):

$$\forall i, \forall q : pos_earn_{iq} = \sum_{s} pos_earn_{isq}$$



Overview EHF ECF GAL OPM QWI

EHF: New National Indicator of Employment

The file is not subject to state-specific restrictions, and is automatically added to any project requesting LEHD data.



Overview EHF ECF GAL OPM QWI

EHF availability metadata

Temporal availability of states (ehf_all_availability), so that users can control for the at-risk states at each point in time



Overview EHF ECF GAL OPM QWI

Restructured ECF

Compatibility

- ► Not completely backward compatible: some variables changed names / no longer produced
- No changes have been made to T26 variables → no change in permissions required

NAICS and SIC

- ► NAICS2012 codings are now available, in addition to other NAICS vintages
- ► SIC1987-based codings still available, consistently named



Overview EHF ECF GAL OPM

GAL restructured

- ► Completely restructured in production system
- ► An attempt was made to maintain backward compatibility, but **not all changes** could be reasonably mapped.
- ► Crosswalks to all input sources have been re-introduced.

Overview EHF ECF GAL OPM

Office of Personnel Management (OPM)

- ► OPM data on Federal workers have been collected under a **single directory**. RDC users should be able to access these files by requesting a "OPM" dataset.
- ► Access to the OPM data **do not require state** permissions.

Quarterly Workforce Indicators (QWI) SEINUNIT

Renamed and dropped variables

- ► In line with changed publication of QWI (lehd.ces.census.gov/doc/Memo_changes_to_QWI.pdf), several variables are no longer present, or have been renamed.
- ▶ In general, names are consistent with the "Alternate names" in (LEHD Schema V4.0.1)
- ► Coding for race and ethnicity has changed, this affects the **naming** of variables.



Overview EHF ECF GAL OPM QWI

QWI SEINUNIT

The following variables are no longer available:

- ► All variables related to *changes in total earnings* (starting with dW)
- ► All variables that are rates (ending in R)
- ► All variables related to periods of non-employment preceding or following a transition (starting with N)
- ► Certain average earnings variables (WCA, WCS, WA, WS)
- ► Certain variables relating to continuous quarter hiring (CH, CR)
- ► The variable FSnx (Full-quarter separations in the **next quarter**)
- ► The variable W2 (average earnings for **end-of-quarter** employment), replaced by W2B (average earnings for **beginning-of-quarter** employment)



When is it available to researchers

Integrated Research Environment (IRE)

The S2014 Snapshot will become available when the IRE is made accessible to FSRDC researchers.



The End



References



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