REGIONAL R&D SATELLITE ACCOUNT: CONCEPTS, DATA, AND METHODS FOR PREPARING PRELIMINARY R&D PRODUCTION BY STATE STATISTICS

Discussion

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Brief disclaimer

- Comments from perspective of R&D statistics co-ordinator at OECD

  [some prior track record in national accounts and R&D capitalization in UK and at OECD]

  Ker, D. and F. Galindo-Rueda (2017), "Frascati Manual R&D and the System of National Accounts", OECD Science, Technology and Industry Working Papers, No. 2017/06, OECD Publishing, Paris, https://doi.org/10.1787/edb6e020-en.

- Not necessarily representing views of OECD, esp. with regards to regional statistics or national accounts.

Questions for discussion

- General thoughts about the project?
  - Feedback on data and methodology?
- How should BEA prioritize work next?
- Communication questions:
  - Should BEA present the statistics with a focus on R&D-intensive industries as proposed or some other way?
  - What can BEA do to inform the data users on the usefulness of these new data?

Project and feedback on work thus far

- Welcome this first step of a broader project – good job
  - Focus on R&D production up until now ➔ GFCF, income, etc later
  - Address relevant questions on structure of economic production, consistent with national and regional accounts
- Task: Allocating national*industry NIPA R&D categories to state level.
  - Magnitudes: {GO + VA + EC }* { own account + for sale) + R&D employment
  - Definitions for some concepts verging on the equivocal, e.g. VA and R&D employment, but satellite account gives some freedom -> clarify
  - Use of NSF/NCSES regional stats in combination with other Census/BLS/BEA sources.
    - Domestic groups with regional breakdowns -> establishment level imputations. Total payroll as allocation index.
- Some questions on handling of:
  - Business R&D sold on market to other business ≠ Regional BERD minus BERD self funded (page 9, first bullet) – Correct to “Business R&D sold in market”. (Count selling also to other sectors)
  - R&D performed by auxiliary establishments of larger companies. Does this include aux to foreign cos?
  - R&D funded by others as a transfer (e.g grants) – connected to US NIPA idiosyncrasies, NCSES data now allows more nuance
  - Subsidies on production implied by R&E tax credit (factor cost to market prices) – already accounted for in NIPA R&D? But regionalised?

Potential priorities?

- More accurate allocation of regional GERD data to establishments via data linking with “closer” R&D performance index
  - R&D linked occupational labour costs/salaries?
- Other spatial dimensions (metro areas, rural)
- Allocation of regional (and national) R&D to industries also for non-business.
- Move to relevant constructs to measure regional productivity etc….
  - Many challenges…
    - M&A etc distorting construction of R&D capital stock measures
    - R&D stock is available to all units in a group
      - > “econ benefit” to individual states from R&D performed in other states
- Regional differences in prices of R&D components, esp. R&D personnel salaries
  - but attention to quality dimensions too

Communication

- Explain what these statistics add on to available regional NSF/NCSES R&D statistics –
  - consistency with regional accounts and measures of geographic industrial "footprint"
  - account for/ explain main differences → compare side by side?
  - Is there a similar initiative for software? Recognise software role within R&D – and delocalisation of such work…
- R&D intensive industries as aides to presentation - Good idea
  - Attention to specialist "R&D industry 5417" interpretability by users.
- Analytical products on the changing R&D footprint
  - E.g.: Within / between industry decomposition of R&D output intensity changes for different states, i.e. changes in size of industries given average R&D intensity vs changes in the R&D intensity within industries.

Congratulations on the good work and progress so far

And especially inter-agency collaboration

Thank you

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