

# Using the Economic Census and Business Register

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# Outline

- Economic Census (1997 example)
- Business Register (1997 example)
- Record Structure
- Identifiers
- Creating Establishment Analysis Files
- Creating Company (Alpha) Files
- Using Bridges to Other Data

# Economic Census (EC) 1997

- Target population:
  - Employer and non-employer establishments in covered industries (essentially everything except agriculture and government)
- Methods:
  - Large employers and a sample of small employers covered by mail questionnaire
  - Remaining establishments estimated from administrative records (mostly tax returns)

# Economic Census Files

Industry		63	67	72	77	82	87	92	97	02
CMI	Mining						X	X	X	X*
CCN	Construction			X	X	X	X	X	X	X*
CMF	Manufacturing	X	X	X	X	X	X	X	X	X
CUT	Transportation and Utilities						X	X	X	X
CWH	Wholesale				X	X	X	X	X	X
CRT	Retail				X	X	X	X	X	X
CFI	Finance, Insurance and Real Estate							X	X	X
CSR	Services				X	X	X	X	X	X
AUX	Auxiliaries				X	X	X	X	X	**

\* Not in RDC data warehouse

\*\* Included in Services

# Questionnaire Forms

- 1997 Economic Census Forms  
<http://www.census.gov/epcd/www/ec97form.html>
- 2002 Economic Census Forms  
<http://bhs.econ.census.gov/econhelp/resources/>
- History of the 1997 Economic Census  
<http://www.census.gov/prod/ec97/pol00-hec.pdf>
- Procedural History of the 2002 Economic Census  
<http://www.census.gov/prod/ec02/ec02-00r-hist.pdf>
- Accountants' Guide to the 2002 Economic Census  
<http://www.census.gov/epcd/ec02/pdf/acctsguide.pdf>
- University Library Government Documents

# Employer Business Register (BR) 1997

- Target Population:
  - Employer establishments in the same industries as are covered by the Economic Census
- Methods:
  - Continuously updated database of establishments divided into multi-unit and single-unit businesses

# Record Structure

- Economic Census
  - All establishments whether from mail questionnaire or administrative record
  - Separate files for Construction, Manufactures, Mining, Retail Trade, Services, (Transportation, Communications, and Utilities), Wholesale Trade
  - Example files are from Census of Manufactures

# Record Structure

- Employer Business Register Single-units (SU)
    - One record for each single unit establishment
    - One record, called a submaster, for each multiunit company
  - Employer Business Register Multi-units (MU)
    - One record for each establishment for each multi-unit
    - Company Organization Survey
- <http://bhs.econ.census.gov/2002forms/nc99002.pdf>

# Identifiers

- Entity Identifiers
  - Census File Number (CFN)
  - Employer Identification Number (EC: EI; BR: EIN)
  - Permanent Plant Number (PPN)
  - Census Alpha (EC: EIALPHA; BR: derived)

# Census File Number (CFN)

- Used for both the EC and BR as the sort order and main index for the file
- Always Character 10 (\$10.)
- For Single-units
  - First character “0”
  - Last 9 characters Federal Employer Identification Number (EIN)
- For Multi-units
  - First character nonzero
  - First six characters Census Alpha
  - Last four characters establishment ID

# Employer Identification Number

- Taxable (legal) entity identifier
- Always Character 9 (\$9.)
- For SUs, equivalent to CFN and unique
- For MUs, applies to the owning entity
  - An Alpha (see below) may be associated with multiple EINs

# Permanent Plant Number

- Longitudinal link based on CFN
- Always Character 10 (\$10.)
- Quality improves since inception in 1982
- Longitudinal links in Longitudinal Business Database are preferable

# Census Alpha

- Identifies the business that owns (50% or greater interest) the establishment for MUs
- EC and BR-SU
  - Character 6 (\$6.) and never has a leading 0
  - Called EIALPHA
- BR-MU
  - Character 10 (\$10.)
  - Called ALPHA
- Used to construct enterprise-level entities

# Business Register Redesign

- 2002 Business Register redesigned
- SURVU\_ID replaced CFN
- SURVU\_TYPE
  - MU/SU
  - ARU = Alternative reporting unit
  - SBM = EIN level reporting
- File Structure
  - Base/Misc
  - Line/Trailer – line code (LCODE) observations
- Historical identifiers (e.g. cfn, ppn) carried forward for continuers

# Identifiers

- Geography Identifiers
  - State identifiers
  - County identifiers
  - City identifiers
  - Full Census geography (BR only)
- Activity Identifiers
  - Industry Codes
  - Product Codes

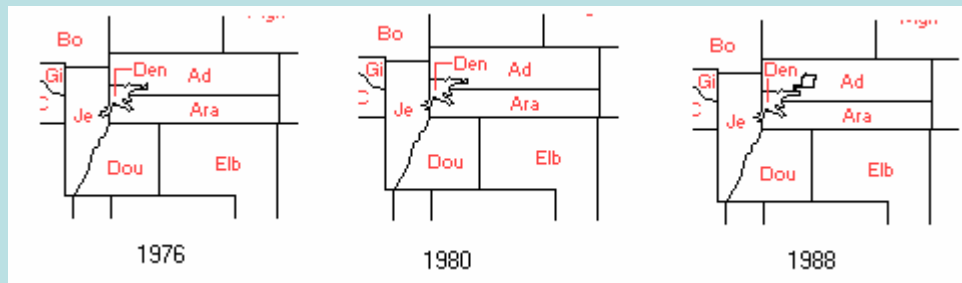
# Geography Identifiers

- EC and BR
  - State (Census and FIPS)
  - County (Census and FIPS)
  - Consolidate Metropolitan Statistical Area (FIPS)
- BR only
  - Census Block
  - Zip
  - County Business Patterns Geography



# County Changes Since 1977

- La Paz, Arizona (created 1983) back into Yuma
  - replace fips=4027 if fips==4012
- Cibola, New Mexico (created 1981) back into Valencia
  - replace fips=35061 if fips==35006
- Washabaugh, South Dakota (merged 1979) back into Jackson
  - replace fips=46071 if fips==46131
- St. Genevieve, Missouri renumbered in 1982
  - replace fips=29186 if fips==29193
- Muskogee, Georgia renumbered in 1982
  - replace fips=13215 if fips==13510
- Denver



# Activity Identifiers

- NAICS
  - Full U.S. Industry code (Char 6)
  - Derived industry codes
- SIC
  - Full 1987 SIC (6-digits to product class code)
- Contemporaneous Industry Definitions
- NAICS to SIC bridge codes

# RDC 2002 NAICS Sectors

NAICS Sectors	RDC 1997/2002 Files
22, 48, 49	CUT (Utilities)
42	CWH (Wholesale)
44, 45, 72	CRT (Retail)
51, 54, 56, 61, 62, 71, 81	CSR (Services)
52, 53	CFI (FIRE)
55	CSR in 2002

Source: K. McCue 2006 Technical Note "Revised Business Census Files: 1977-2002 Census of Retail, Wholesale, Services, Communications/Utilities/Transportation, and FIRE"

# Finding Active Entities

- EC
  - Use sample weight ( $WT > 0$ )
- BR-SU
  - Exclude submasters ( $PDIV = 'M'$ )
  - Payroll or employment positive (see example)
- BR-MU
  - Exclude ghosts ( $ACT = 'G'$ )
  - Payroll or employment positive (see example)

# Creating Custom Entities

- Establishment-level files
  - EC: natural organization
  - BR-SU: exclude submaster records
  - BR-MU: exclude ghosts
- Company-level files
  - EC: use EIALPHA to find related establishments
  - BR: create compatible ALPHA10 in SU to get information on submasters to link to establishments on MU
- Pseudo-establishments
  - Combine establishments based on EIN, geography and activity

# Examples

- Processing the Census of Manufactures
- Processing the BR SU and MU files