

Overview of the U.S. Census Bureau's Business Register

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Economic Census, and Integrated Economic Statistics

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Topics

- Definition & Uses of the Business Register (BR)
- Key Concepts: Units & Business Organizational Structures
- The BR System: Database & Software
- Maintaining the BR
 - Administrative Records
 - Company Organization Survey (COS)
 - Economic Census
- Future Plans

Definition & Uses

The BR is: **The Census Bureau's master database of businesses**

Primary use:

- Identifying target populations for business statistics programs:
 - Economic Census enumeration list
 - Survey sampling frames

Other uses:

- Central repository of administrative data
- Operational control for data collection & processing (EC, ASM)
- Data source for statistical products (CBP, ZBP, NES)
- Resource for economic research (LBD, BDS)

Benefits:

- Lower costs
- Platform for standardization
- Processing efficiencies

Types of Units

Business Register Units			Created by
Statistical	Standard	Establishment	Census Bureau
		Enterprise	
	Special	Split-part enterprise (SPE)	
		Alternative Reporting Unit (ARU)	
Administrative		EIN Unit (<i>Employer Identification Number</i>)	Internal Revenue Service (IRS)
		SSN Unit (<i>Social Security Number</i>)	

* Government entities are generally NOT contained on the BR. Instead, they are stored in a separate database, called the Governments Master Address File, or GMAF.

Establishment

An economic unit, *usually at a single physical location*, where business is conducted or where services or industrial operations are performed

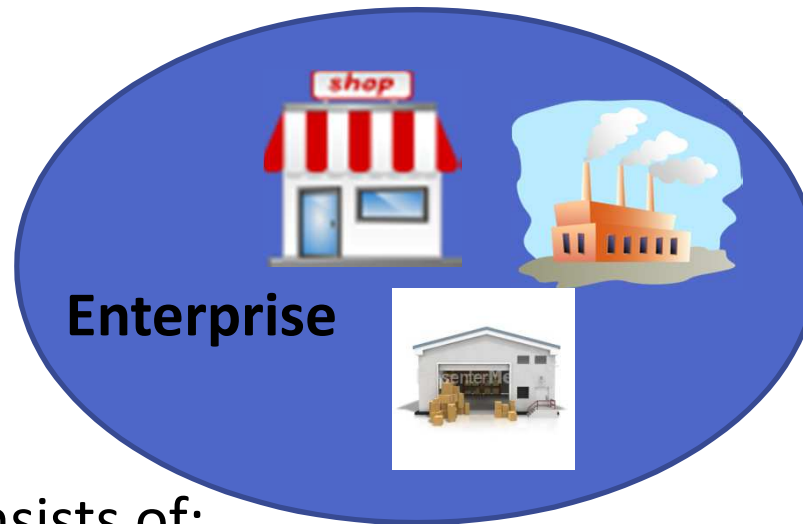


Also:

- The BR's smallest, most discrete business unit
- The unit to which NAICS (industry codes) apply
- The basic enumeration unit for the economic census (most industries)

Enterprise

An economic unit comprising *one or more establishments under common ownership or control*



A BR enterprise consists of:

- Top U.S. parent (legal entity) and its establishments
- U.S. subsidiaries of foreign-owned companies in which the top U.S. parent has more than 50% ownership/control

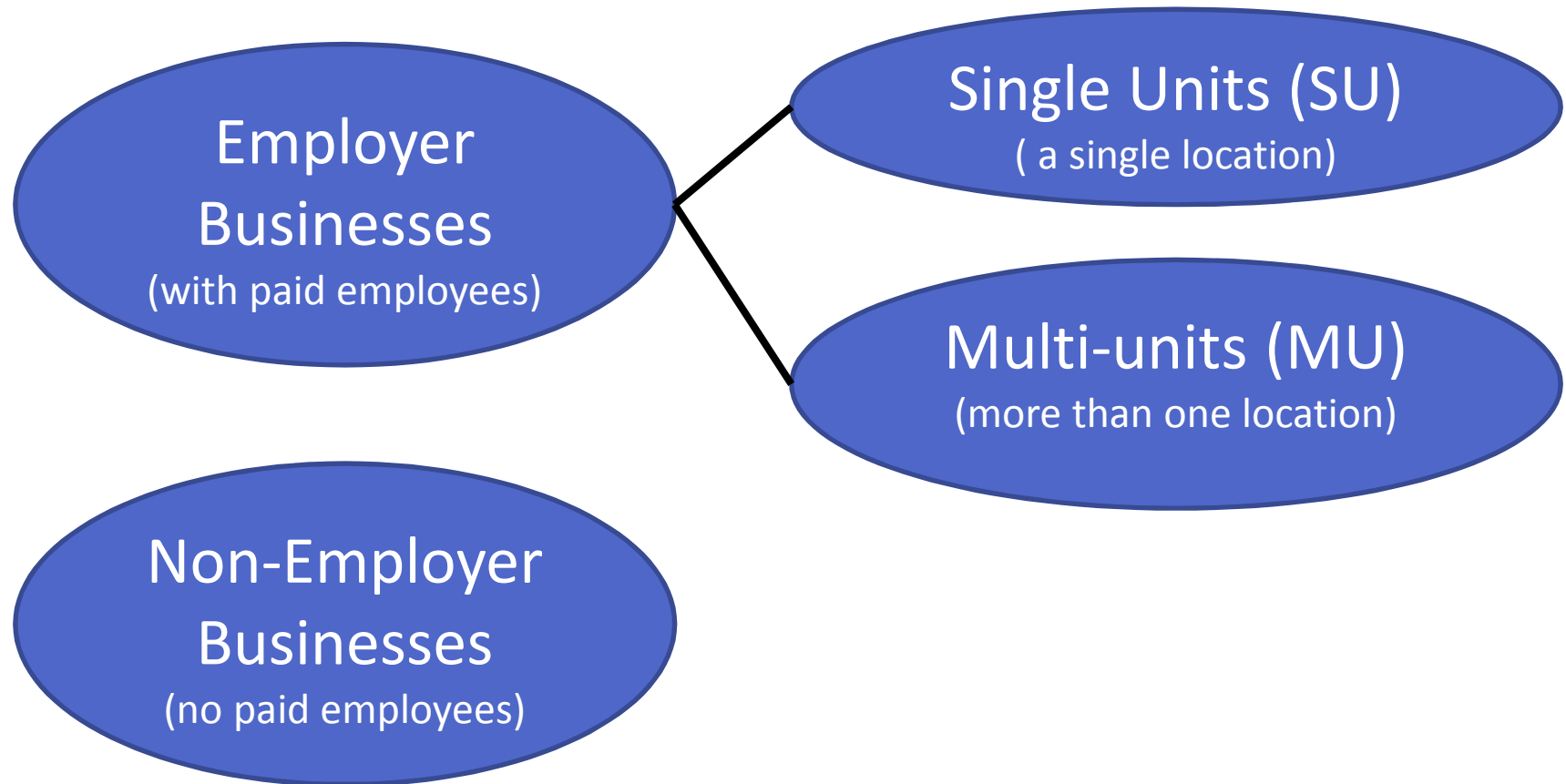
EIN and SSN Units

Entities created by the Internal Revenue Service (IRS) for tax-paying purposes

EIN Unit	SSN Unit
Employer Identification Number	Social Security Number
Corporations, partnerships, non-profits	Sole proprietors
May be used for payroll tax reporting, income tax reporting, or both	Used for income tax reporting
All businesses with paid employees must have at least one EIN	Filed with the business owner's individual income tax return (IRS 1040 Schedule C)
Businesses may have multiple EINs	Primary source of "non-employer" businesses

Business Organizational Structures

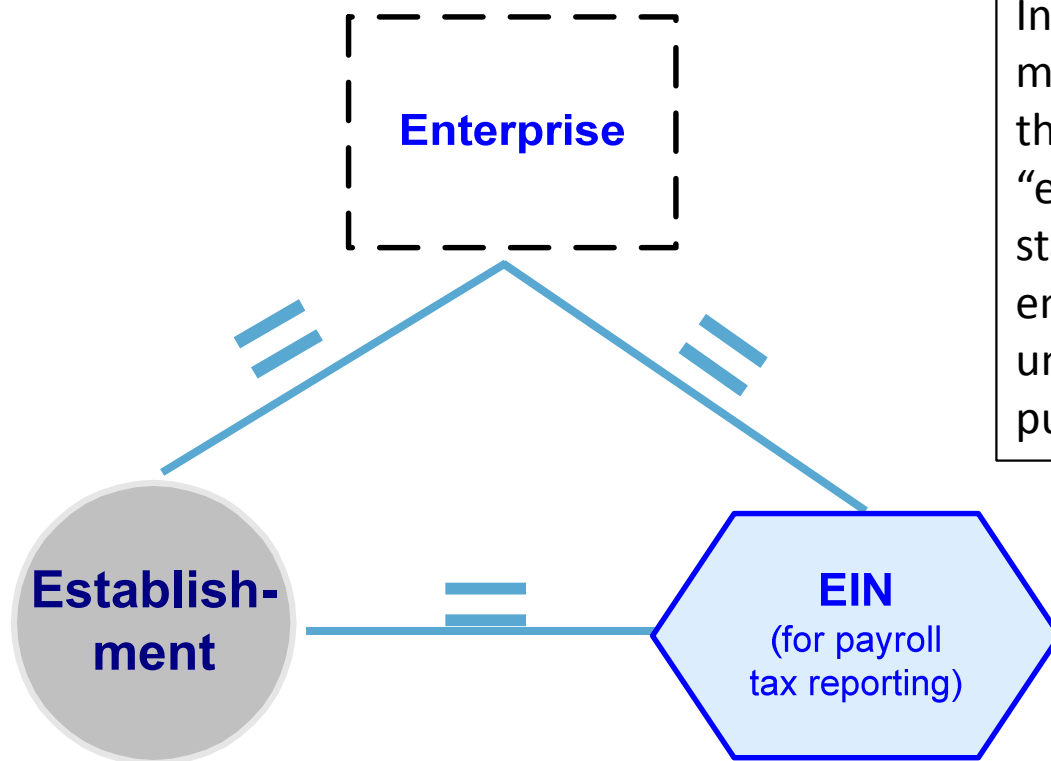
BR statistical and administrative units are organized into business structures



Single Unit (SU) Employers

For all practical purposes, the enterprise, establishment, and EIN unit are one and the same.

Note:
In practice, for SUs the BR does not maintain separate statistical units for the “enterprise” and the “establishment.” Instead, there is one statistical unit that represents both entities. It is directly linked to the EIN unit that is used for payroll tax reporting purposes.



Multi-unit (MU) Employers

The simplest MU enterprise has:

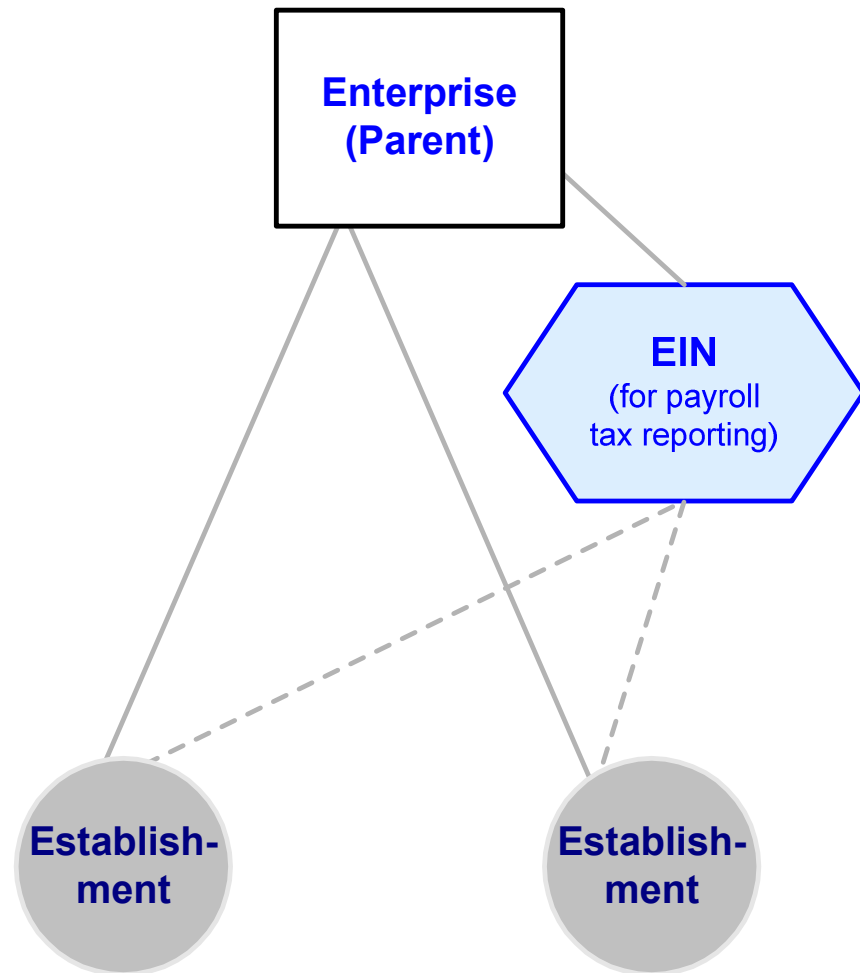
- 2 establishments
- 1 EIN unit

~75% of all MU enterprises have:

- One EIN
- 5 or fewer establishments

However...

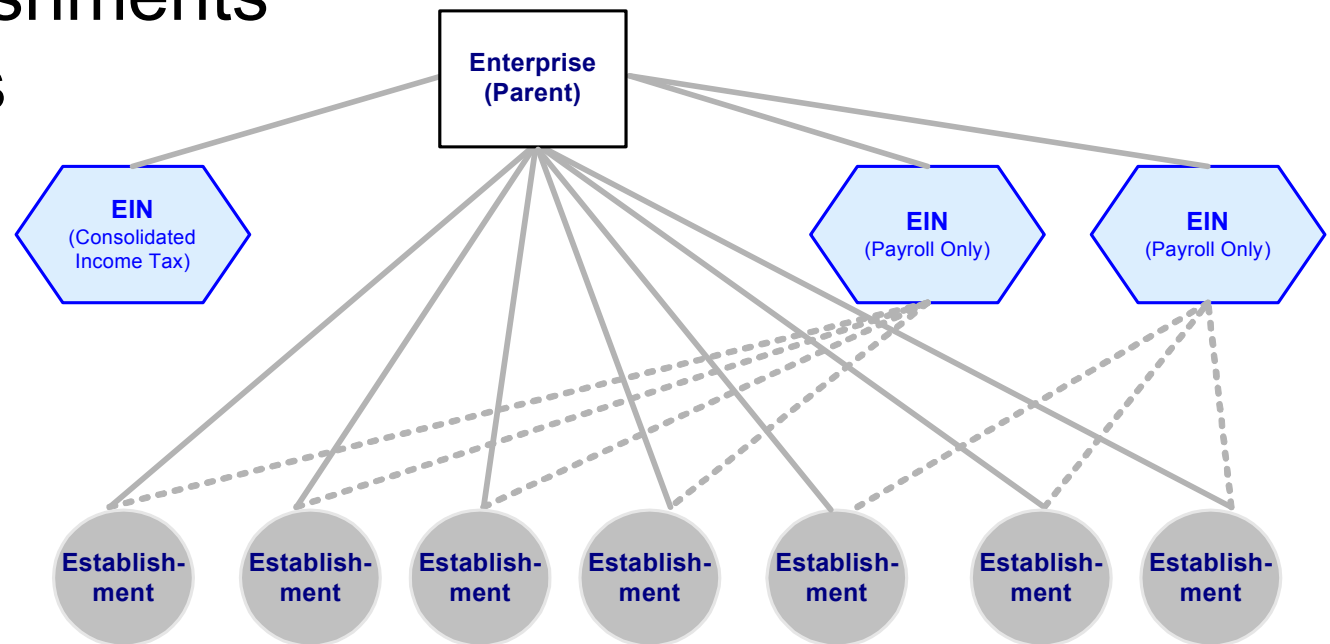
They cover only about 15% of total MU employment



Multi-unit (MU) Employers

More complex MU enterprises have:

- Many establishments
- Multiple EINs

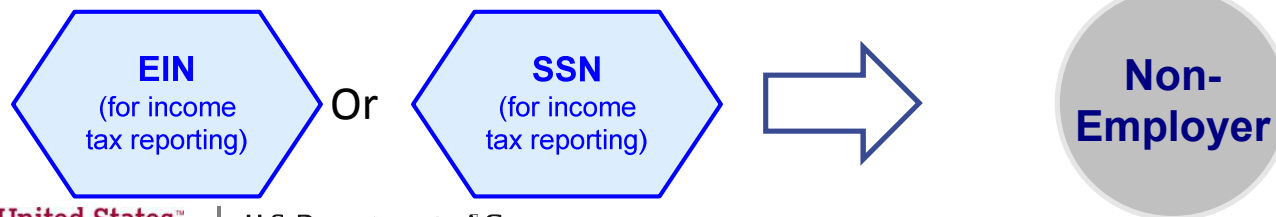


Some larger MUs have:

- > 2,400 EINs
- > 13,000 establishments
- > 1.3 million employees

Non-Employers

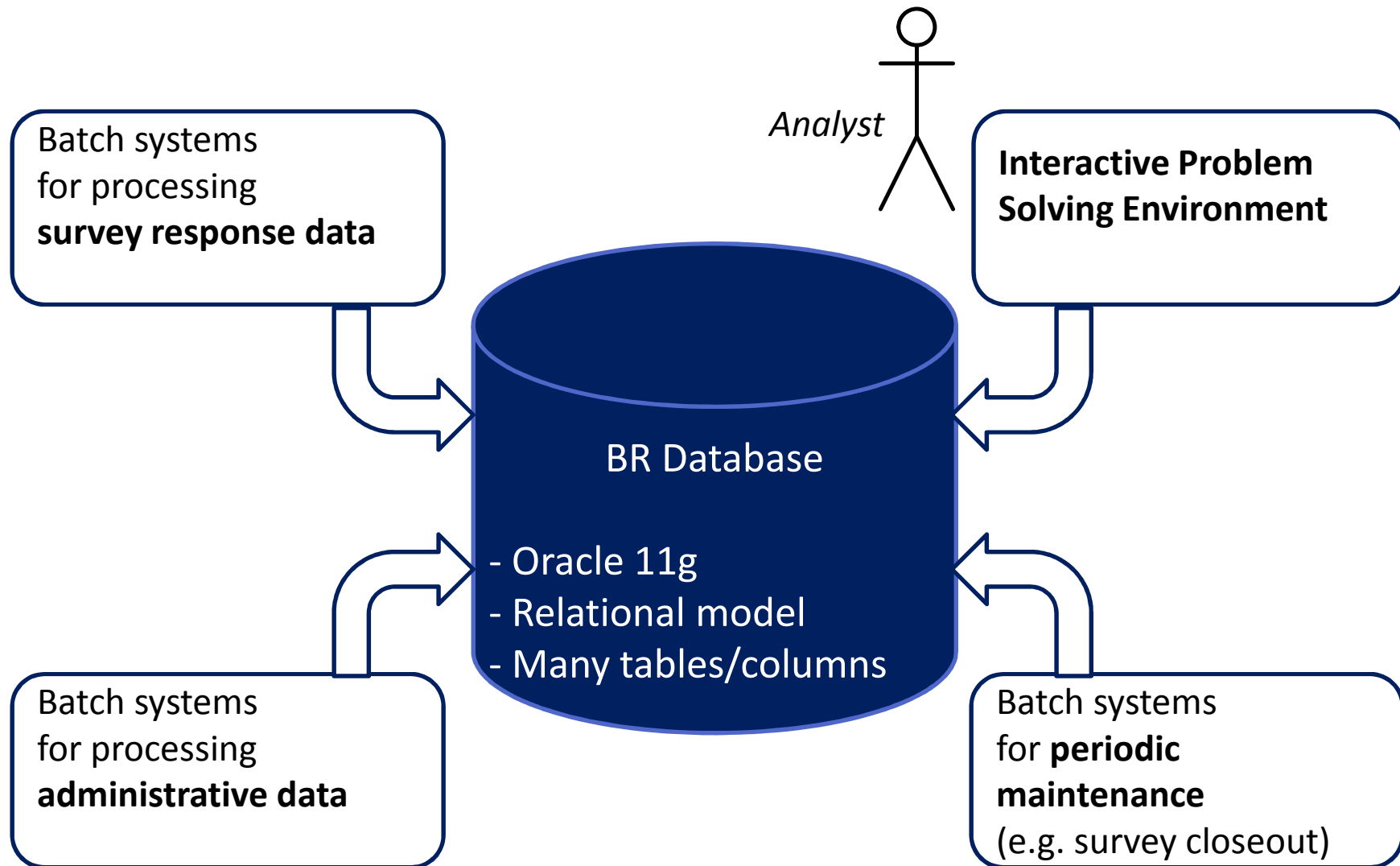
- Selected business income tax entities are the basis of the non-employer universe.
- Business income tax paying entities (EINs and SSNs) that:
 1. Are not affiliated with an MU company and...
 2. Do not match an active payroll tax entity and...
 3. Are below the net receipts cutoff for their assigned industrial classification (NAICS)......are included in the non-employer universe.



Counts of BR Statistical Units

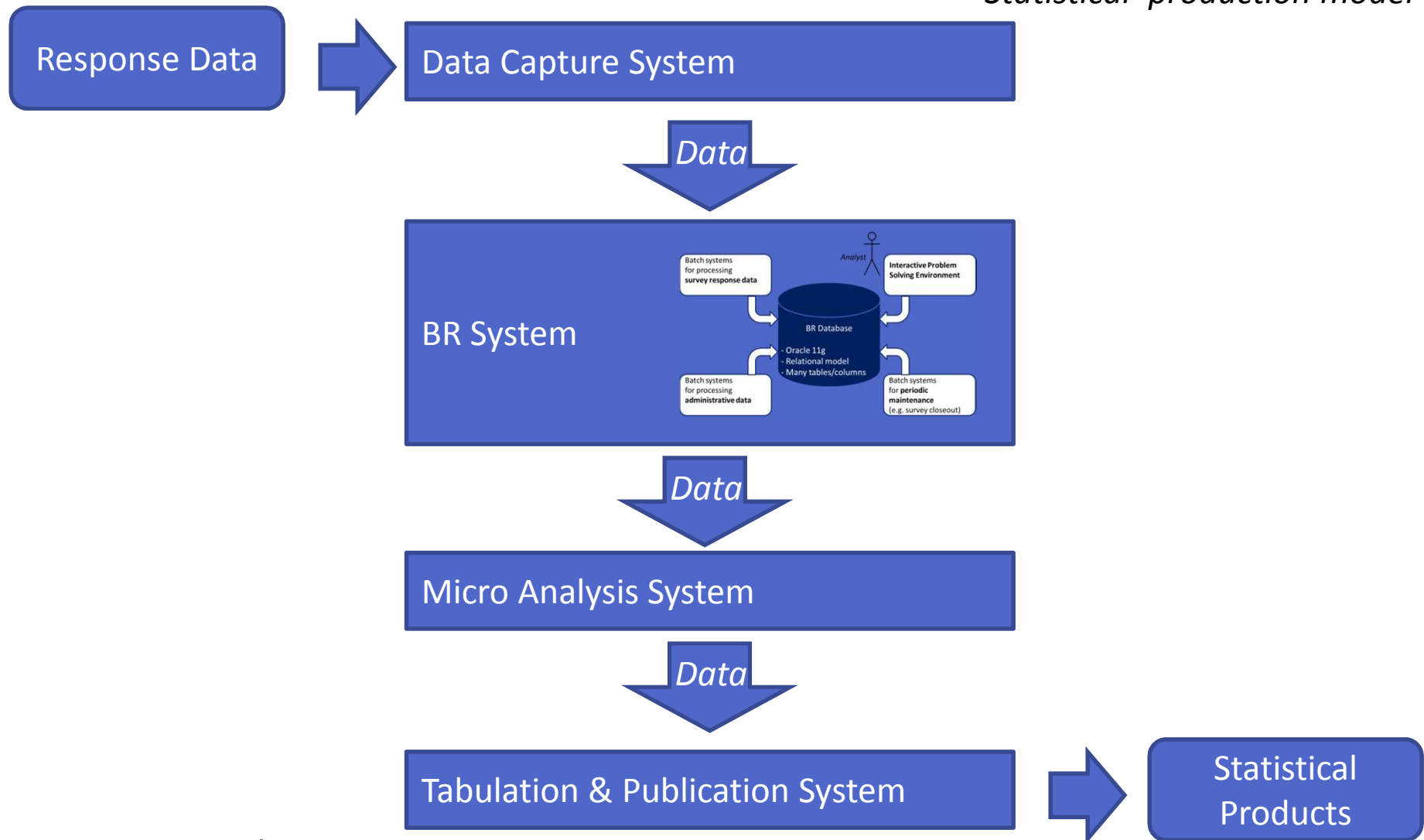
Business Type			Approximate Number
Employers	Multi-units	Parent Enterprises	170,000
		Establishments	1,800,000
	Single units	Establishments	6,000,000
Non-Employers			22,500,000

The BR System: Database & Software

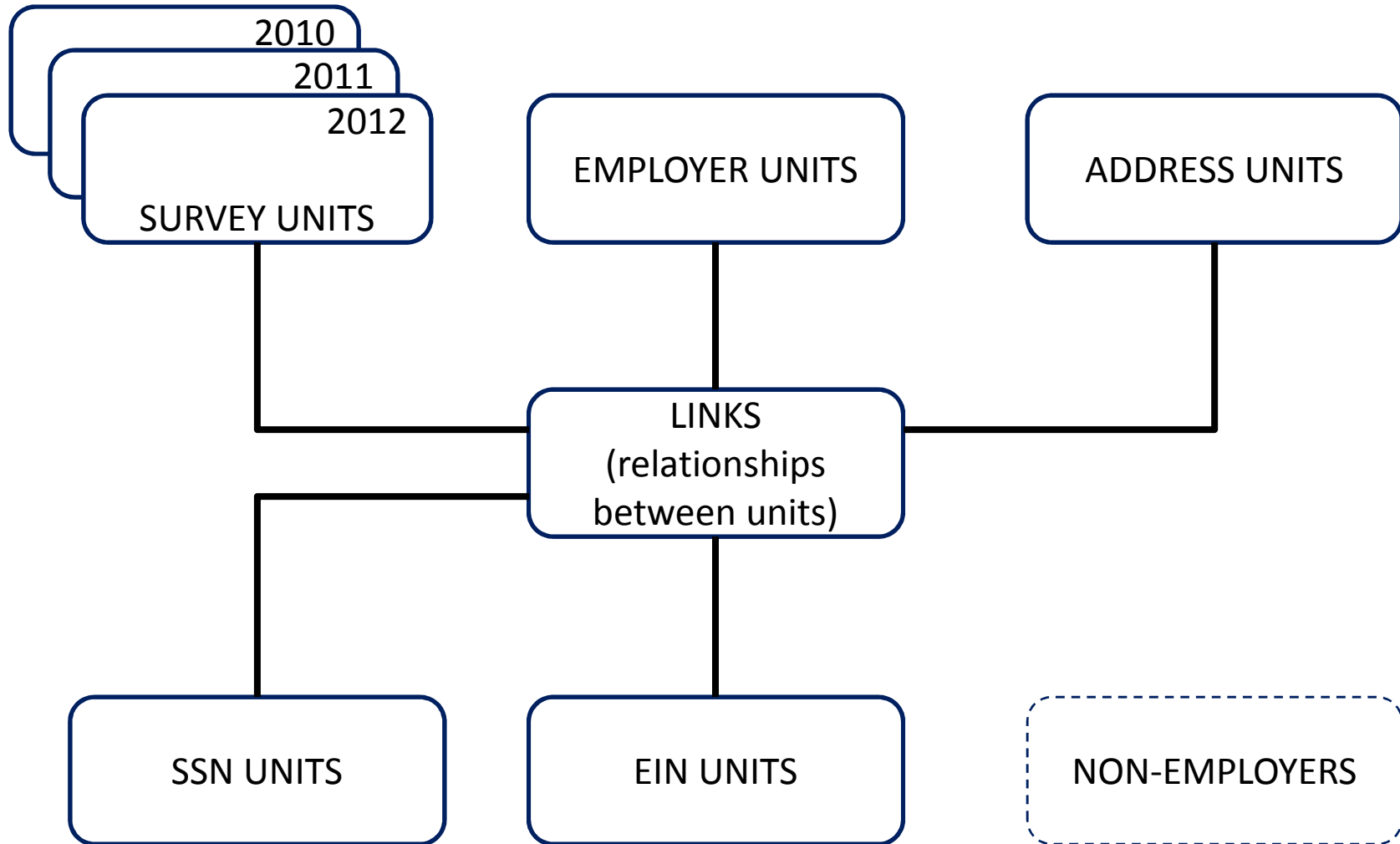


The BR System & Statistical Production

Statistical production model



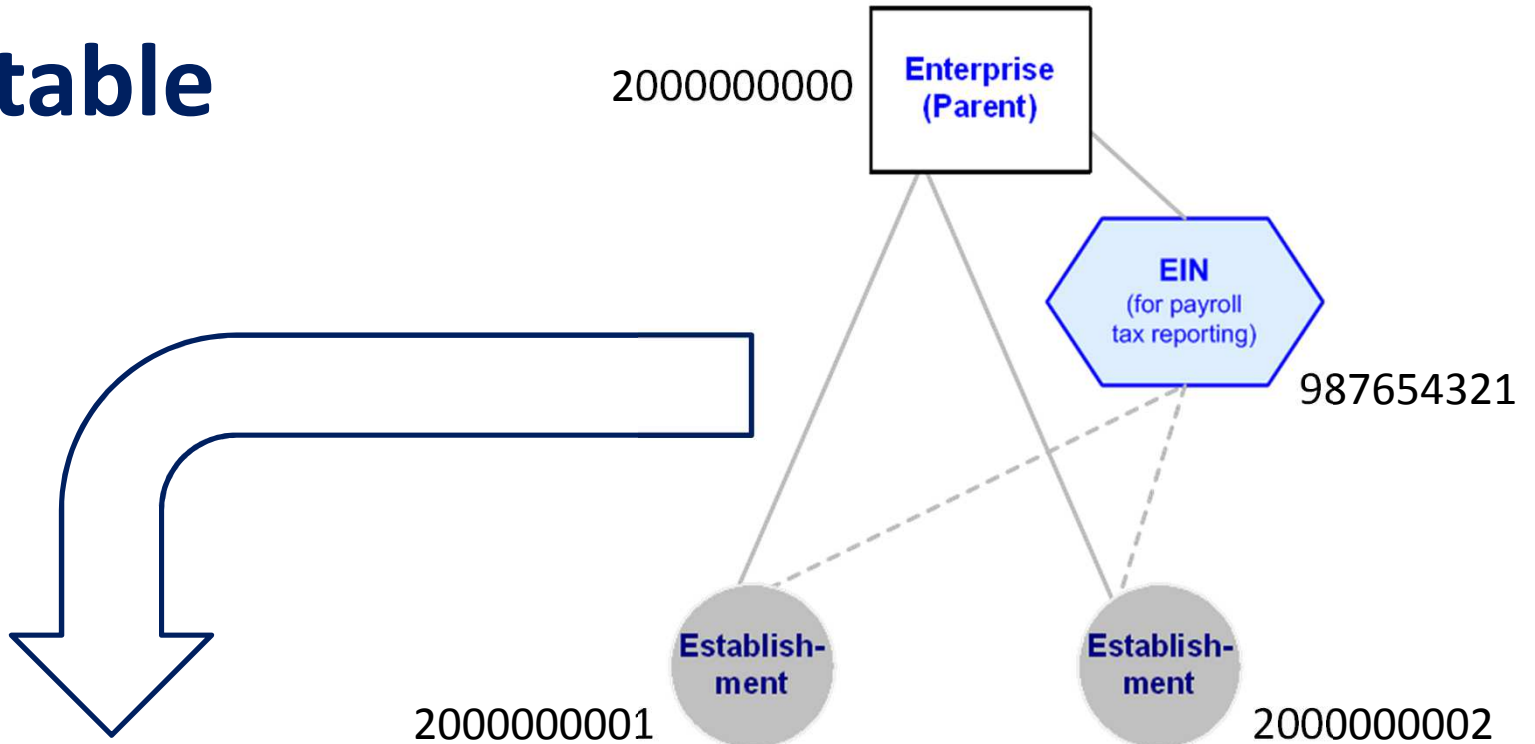
BR Database: Basic Organization



Survey Units vs. Employer Units

Employer Units	Survey Units
Source for sampling frames	Reporting/collection units for a survey or the EC. Constructed from employer units.
No survey/reference period dimension	Specific to a particular survey/reference period.
Subject to continuous update	Only subject to update during the given survey/reference period. Deemed “final” once the survey has closed out
Contains only enterprises and establishments	Contains enterprises, establishments and special collection units (ARUs and SPEs)
Reflective of most current organizational structures and unit characteristics	Historical survey/reference periods allow for analysis of organization change over time.

LINKS table



LINK_NAME	LINK_ID1	LINK_ID2	ACTV	BGN	END
EMPEMP2	2000000000	2000000001	Y	1/1/2012	
EMPEMP2	2000000000	2000000002	Y	1/1/2012	
EMPEIN1	2000000000	987654321	Y	1/1/2012	
EMPEIN3	2000000001	987654321	Y	1/1/2012	
EMPEIN3	2000000002	987654321	Y	1/1/2012	

Core Unit Attributes & Characteristics

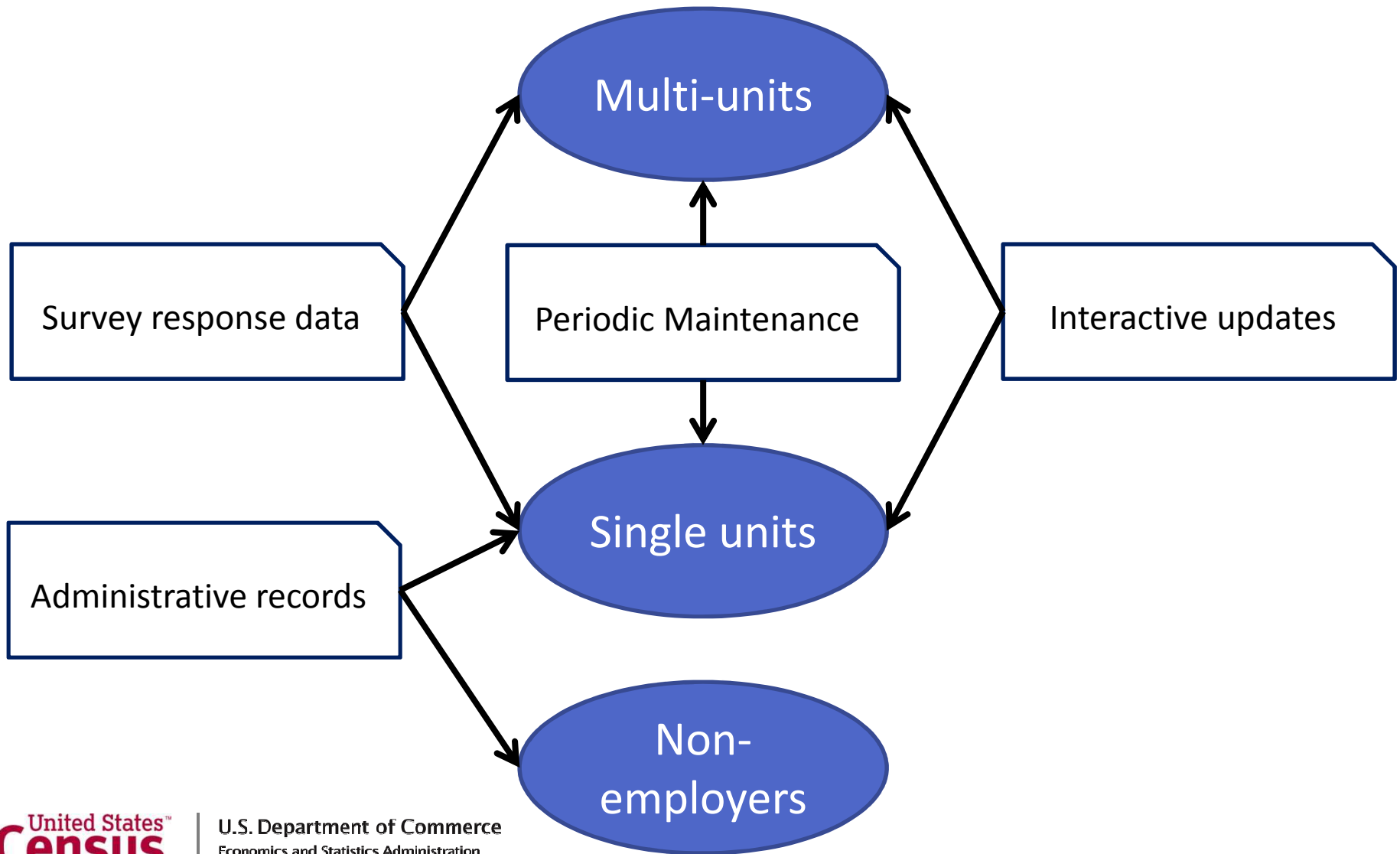
- Unique identifier and type of unit (i.e., EIN, ENT, MU, SU, SBM)
- Business name – primary and secondary
- Addresses – mailing, physical, foreign, other
- Industrial classification: NAICS codes
- Legal form of organization
- Tax status
- Size and activity measures:
 - Primary:
 - Annual payroll
 - 1st quarter payroll
 - Employment for pay period including March 12
 - Other:
 - Sales/receipts/revenue
 - Total assets, inventories (beg. and end-of-year), and expenses
- Operational status
- Affiliates and linkages to other units

Maintaining the BR

- BR maintenance is the process of updating the database in order to provide a set of statistical units that are as complete and accurate as possible.
- Updates are dynamic, nearly continuous and are controlled through the different components of the BR system.
- Primary sources of update include:
 - Administrative records
 - Survey response data:
 - Company Organization Survey (COS)
 - Annual Survey of Manufactures (ASM)
 - Economic Census (EC)
 - Business and Professional Classification Survey (SQ-CLASS)
 - Interactive updates
 - Periodic maintenance events

Maintaining the BR

Sources of update and impact on BR companies



Administrative Records

Supplier	File	Unit Type	Frequency	Annual Volume
IRS	Annual Business Master File (BMF)	EIN	Annually	40 million
	BMF supplements	EIN	Monthly	17 million
	Payroll tax (<i>IRS Form 941,943,944</i>)	EIN	Weekly	24 million
	Business Income tax : <i>Corporations (1120), partnerships (1065), non-profits (990)</i>	EIN	Weekly	15 million
	Business Income tax: <i>sole proprietors (1040-C)</i>	SSN	Weekly	24 million
SSA	NAICS (<i>description coding of newly assigned EINs; SS-4</i>)	EIN	Monthly	2.4 million
BLS	NAICS (<i>from state unemployment insurance records</i>)	EIN	Quarterly	4.4 million
TOTAL				126.8 million

Suppliers:

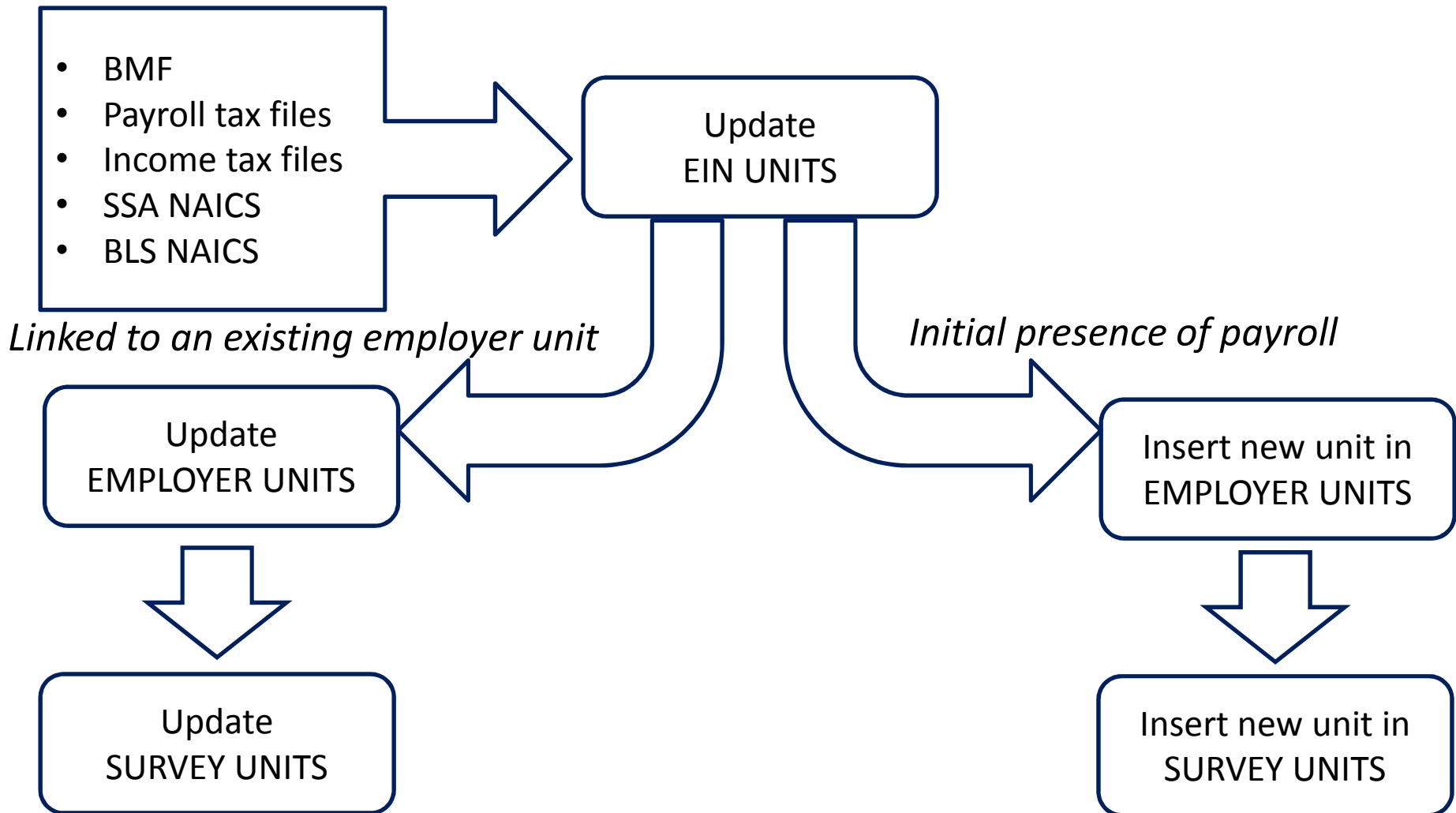
IRS = Internal Revenue Service, SSA= Social Security Administration, BLS= Bureau of Labor Statistics

Administrative Records

Supplier	File	Unit Type	Key Data Provided
IRS	BMF (annual & supplements)	EIN	<ul style="list-style-type: none"> • Business name • Mailing address • Physical location address • Filing requirements
	Payroll tax	EIN	<ul style="list-style-type: none"> • Payroll • Employment
	Business Income tax : <i>corporations, partnerships, non-profits</i>	EIN	<ul style="list-style-type: none"> • Receipts, sales, or revenue • Inventories, assets, expenses • Legal form derivation • NAICS code
	Business Income tax: <i>sole proprietors</i>	SSN	<ul style="list-style-type: none"> • Business Name • Address • Receipts • NAICS code
SSA	NAICS	EIN	<ul style="list-style-type: none"> • NAICS code
BLS	NAICS	EIN	<ul style="list-style-type: none"> • NAICS code

Administrative Records

Simple Data Flow Model



Non-Administrative Sources of Updates

Source	Units Covered	Unit of Collection	Frequency	Key Data Provided
COS	42,000 MU enterprises with more than 500 employees and sample of 5,000 SUs	Estab.	Annually, except in census years	<ul style="list-style-type: none"> • See next slide
Econ Census	All multiunits, sample of singleunits	Estab.	Years ending in "2" and "7"	<ul style="list-style-type: none"> • See next slide
SQ-CLASS	Sample of new EINs on the BR (50,000 – 60,000 annually)	EIN	Quarterly	<ul style="list-style-type: none"> • Ownership or control by a parent enterprise • Location of operation • NAICS code • Receipts in 2 recent months

Economic Census and COS Content

Content for each establishment:

- Ownership or control by a parent enterprise
- Locations of operation
- Primary and secondary name
- Physical location address
- EIN used for payroll tax reporting
- NAICS and Type of Operation
- Employment for pay period including March 12
- First quarter and annual payroll
- Dollar volume of business (value of shipments, sales, receipts, revenue)
- Year-end operating status
- Value of products and services by category (selectively)
- Other industry-specific content

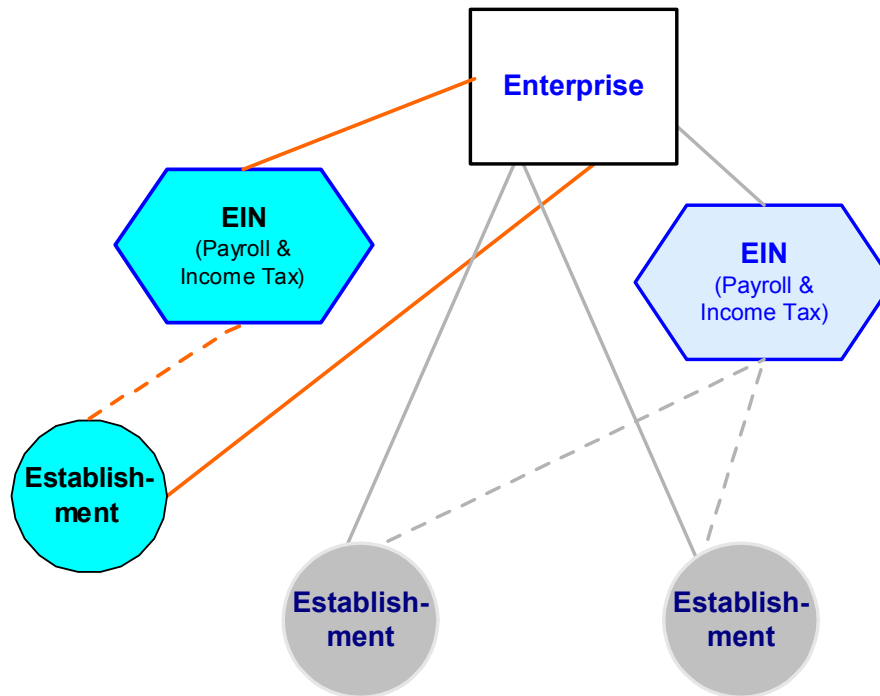
Common Coverage Scenarios

- New multiunit (MU) establishments
- New singleunit (SU) establishments
- Closed or idle multiunit establishments
- Inactive singleunit establishments
- Changes in ownership or control

New MU Establishments

- Identified via:
 - Company Organization Survey, Item 5B
 - Economic Census on “Add” report forms
- Must provide:
 - Business Name
 - Address
 - EIN
 - NAICS code

New MU Establishments - Example



row	LINK_ID1	LINK_ID2	LINK_TYP1	LINK_TYP2	ACTV_STAT	BGN_DATE	END_DATE	LINK_NAME
1	222222222	222211111	ENT	MU	Y	06/30/2004 00:00:00		EMPEMP2
2	222222222	222211112	ENT	MU	Y	06/30/2004 00:00:00		EMPEMP2
3	222222222	987654321	ENT	EIN	Y	06/30/2004 00:00:00		EMPEIN1
4	222211111	987654321	MU	EIN	Y	06/30/2004 00:00:00		EMPEIN3
5	222211112	987654321	MU	EIN	Y	06/30/2004 00:00:00		EMPEIN3
10	222222222	222244444	ENT	MU	Y	09/30/2005 00:00:00		EMPEMP2
11	222222222	876543219	ENT	EIN	Y	09/30/2004 00:00:00		EMPEIN1
12	222244444	876543219	MU	EIN	Y	09/30/2004 00:00:00		EMPEIN3

New SU Establishments

- Identified via:
 - Administrative records processing only
- When the Census Bureau receives notification that an EIN begins reporting payroll to the IRS, a new SU Employer Unit is created in the BR.

Example:

Suppose EIN=111111111 files its initial payroll tax return with the IRS for the first quarter of 2005. When this payroll data gets posted to the BR a corresponding Employer Unit (ID=2121212121) will be created and linked to the EIN.

row	LINK_ID1	LINK_ID2	LINK_TYP1	LINK_TYP2	ACTV_STAT	BGN_DATE	END_DATE	LINK_NAME
1	2111111111	123456789	SU	EIN	Y	06/30/2004 00:00:00		EMPEIN5
2	2121212121	111111111	SU	EIN	Y	03/30/2005 00:00:00		EMPEIN5

Closed or Idle MU Establishments

- Identified via:
 - COS, Item 5A, "Operational Status..." Checkbox
 - Economic Census, Item 29, "Operational Status..." Checkbox (see below)

Form RT-44102

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29 OPERATIONAL STATUS
 Activity that best describes this establishment's status at the end of 2002
 (Mark "X" only ONE box.)

0011 <input type="checkbox"/> In operation	0014 <input type="checkbox"/> Ceased operation - Give date at right	→	0018	Month	Day	Year
0013 <input type="checkbox"/> Temporarily or seasonally inactive	0015 <input type="checkbox"/> Sold or leased to another operator - Give date at right AND enter new name and mailing address below	→				

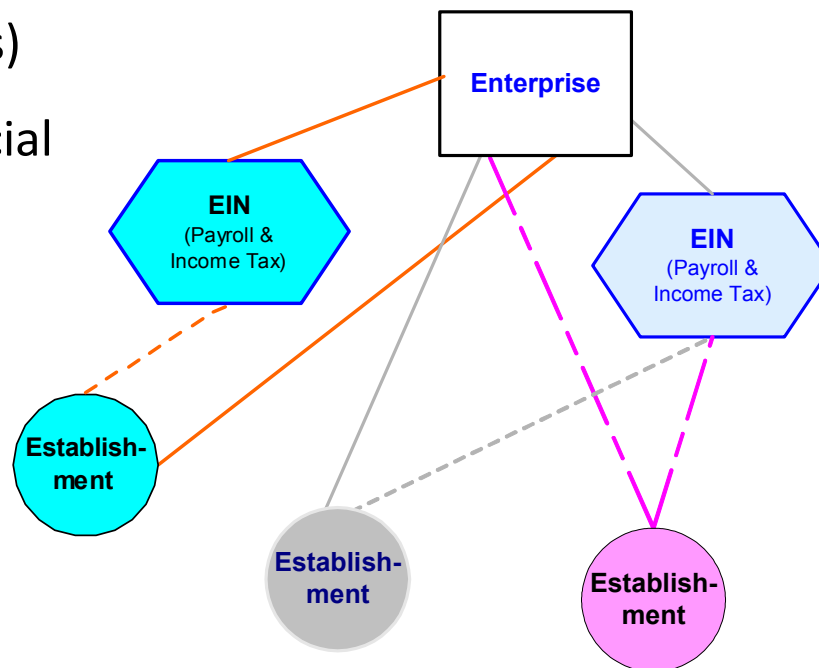
0060 Name of new owner or operator	0061 Employer Identification Number
	Enter EIN of new owner (9 digits) →
0062 Mailing address (number and street, P.O. Box, etc.)	
0063 City, town, village, etc.	0064 State 0065 ZIP Code

Remarks (Please use this space for any explanations that may be essential in understanding your reported data.)

Closed or Idle MU Establishments - Example

Closed MUs are inactivated (see diagrams)

Idle MUs remain active but receive a special “coverage code” indicating their status.



row	LINK_ID1	LINK_ID2	LINK_TYP1	LINK_TYP2	ACTV_STAT	BGN_DATE	END_DATE	LINK_NAME
1	2222222222	2222111111	ENT	MU	Y	06/30/2004 00:00:00		EMPEMP2
2	2222222222	2222111112	ENT	MU	Y N	06/30/2004 00:00:00	09/30/2005 00:00:00	EMPEMP2
3	2222222222	987654321	ENT	EIN	Y	06/30/2004 00:00:00		EMPEIN1
4	2222111111	987654321	MU	EIN	Y	06/30/2004 00:00:00		EMPEIN3
5	2222111112	987654321	MU	EIN	Y N	06/30/2004 00:00:00	09/30/2005 00:00:00	EMPEIN3
10	2222222222	2222444444	ENT	MU	Y	09/30/2005 00:00:00		EMPEMP2
11	2222222222	876543219	ENT	EIN	Y	09/30/2004 00:00:00		EMPEIN1
12	2222444444	876543219	MU	EIN	Y	09/30/2004 00:00:00		EMPEIN3

Inactive SU Establishments

Identified only through administrative records processing:

When an EIN ceases to report payroll to the IRS for 12 consecutive quarters, the SU is inactivated. The link between the SU and the EIN is also inactivated.

Example:

Suppose EIN=123456789 has not filed a payroll tax return with the IRS for 12 consecutive quarters. The link between the EIN and its corresponding SU is inactivated.

row	LINK_ID1	LINK_ID2	LINK_TYP1	LINK_TYP2	ACTV_STAT	BGN_DATE	END_DATE	LINK_NAME
1	2111111111	123456789	SU	EIN	Y N	06/30/2004 00:00:00	09/30/2005 00:00:00	EMPEIN5
2	2121212121	111111111	SU	EIN	Y	03/30/2005 00:00:00		EMPEIN5

Changes in Ownership or Control

- Identified via:
 - Company Organization Survey, Item 5A, “Operational Status...” Checkbox
 - Company Organization Survey, Item 5B, “Former owner or operator” Inquiry
 - Economic Census, Item 29, “Operational Status...” Checkbox
 - Economic Census, on “Add” report forms

Other Ownership Coverage Scenarios

- Mergers -- One enterprise acquires another in its entirety.
- Spin-offs -- A subsidiary of an existing enterprise becomes a new enterprise.
- Single Unit “Splitters”-- An SU establishment that is actually operating at multiple locations (i.e., 2 or more establishments).

Future Plans for the BR

Overall Objective: Re-engineer the Business Register and associated business processes in time for the 2022 Economic Census.

- Supports long-term vision of the Econ Hub
 - Harmonized data model
 - Use of methods and processes to achieve data coherence and operating efficiencies
- Will drive and support fundamental cultural changes in the way we conduct business
- Requires broad participation among Econ Directorate staff

BR Re-engineering Objectives

- **Integrate BR functions with Census Enterprise Data Collection and Processing (CEDCAP)**
 - CEDCAP is the name given to an agency-wide effort to develop an efficient, standardized set of systems for collecting and processing survey and census data.
- **Integrate current surveys and other economic programs more fully into the BR framework:**
 - Add current survey sampling and collection units
 - Coordinate large company updates
- **Integrate other administrative data sources for BR management and maintenance**
- **Establish the BR as the authoritative/”best” source for critical characteristics -- payroll, employment, address, industry code (e.g., “best NAICS”)**

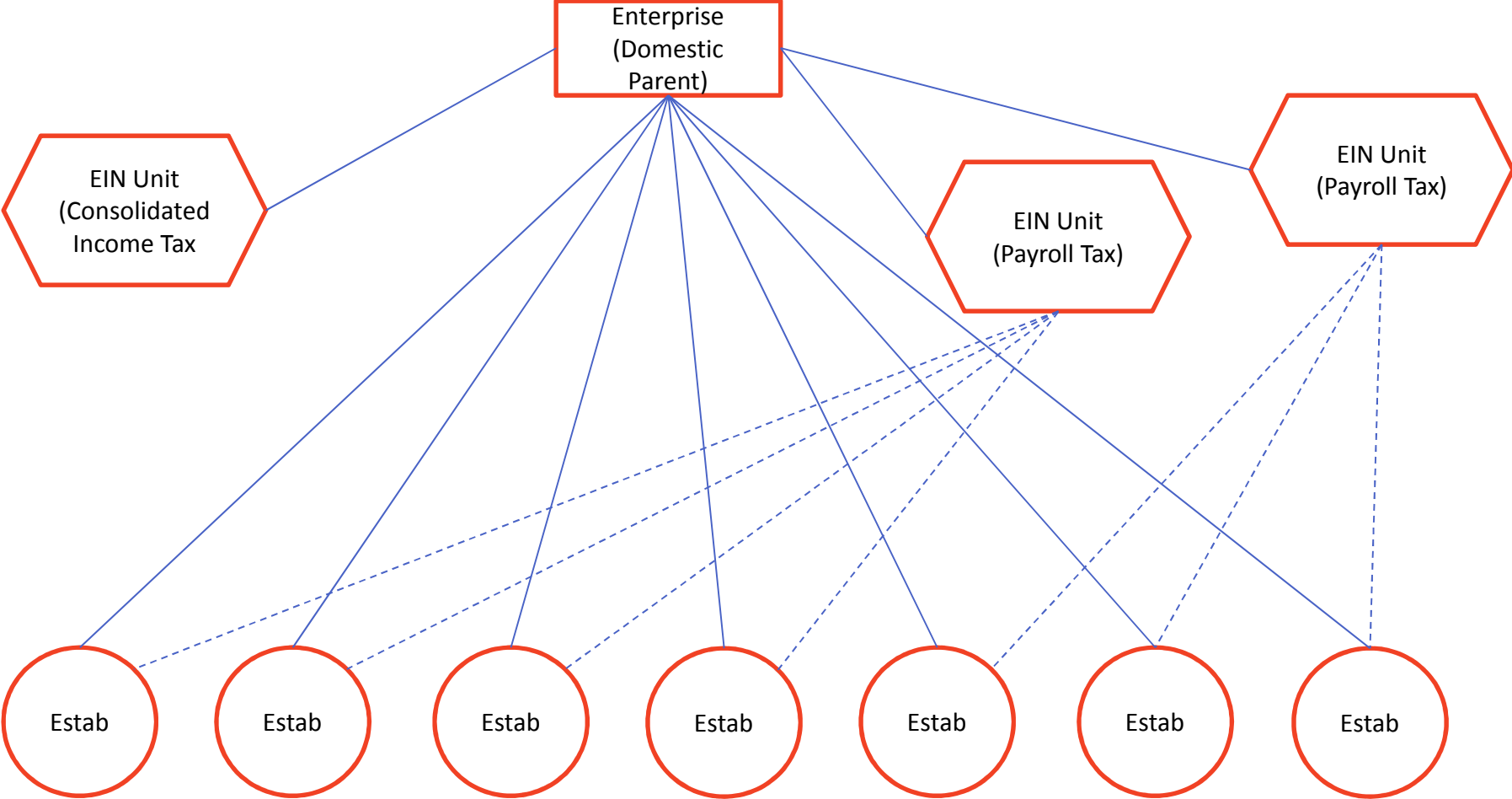
BR Re-engineering Objectives (cont.)

- **Improve business processes for large company updates from all sources**
 - Frequency
 - Certification of staff who update the BR
 - Communication on company updates
- **Improve technical performance**
 - Robustness
 - Speed – for updating, transfer of data with CEDCaP, and backup
 - Storage and archiving
 - Security
- **Create a seamless interaction/pipeline with related products, including the Longitudinal Business Database (LBD) and the Governments Master Address File (GMAF)**

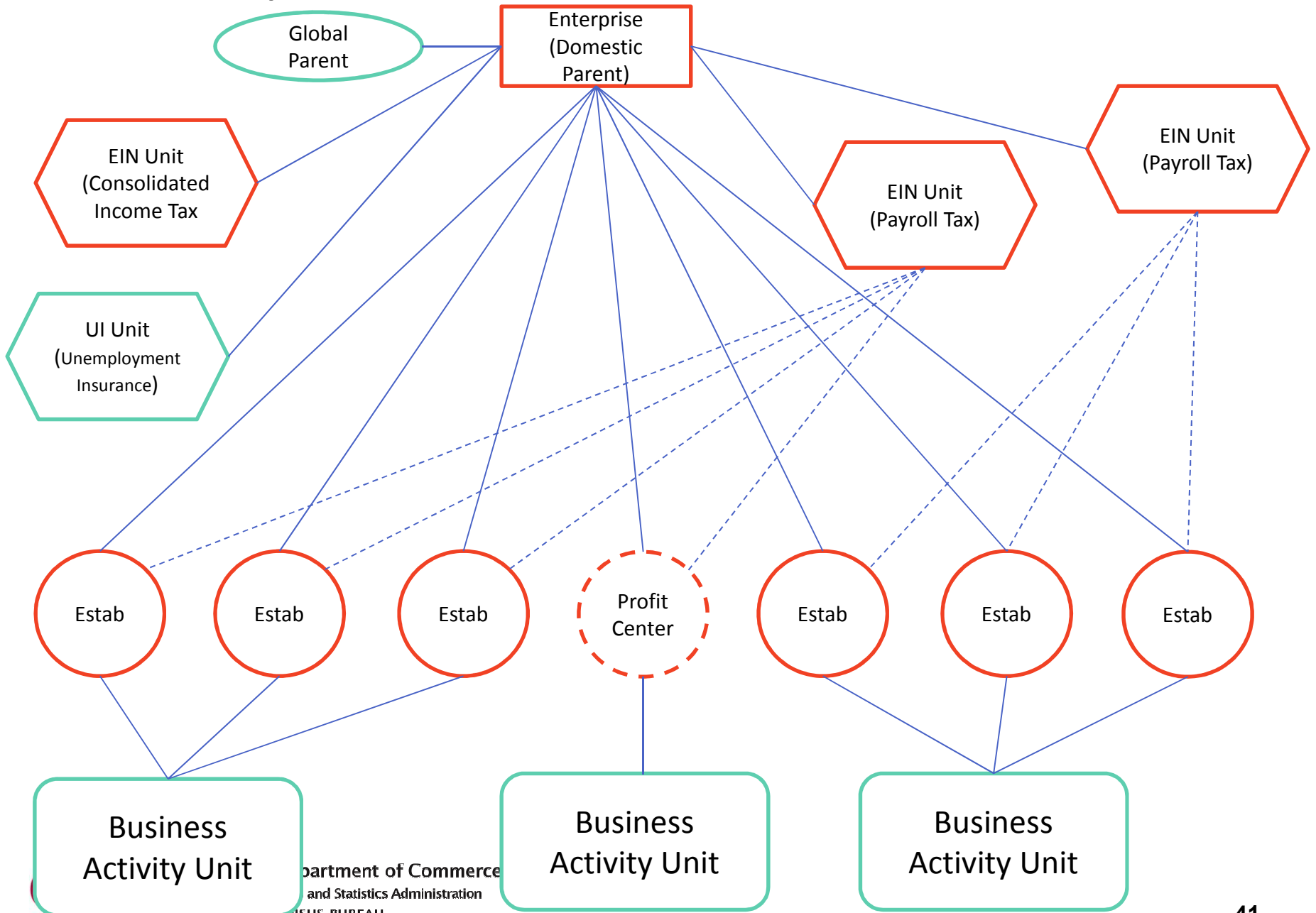
Future Capabilities of the BR

Business Register Capabilities	Current	Future
EC enumeration list	Yes	Yes
Survey sampling units	Indirect	Direct
Administrative records repository	Yes	Yes
Operational control system for EC	Yes	No (MOCS)
Platform for account management	Indirect	Yes
Captured data repository	Yes	Expanded
Platform for coverage & completeness processing	Yes	Yes
Data source for selected statistical products	Yes	Yes
Resource for economic research	Yes	Yes
EC processing	Support	Support
Survey processing	No	Support

Multi-unit Enterprise Structure: Current



Multi-unit Enterprise Structure: Future?



Thank You.

Contact Information

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Appendix

Administrative Records

- Data are generally of very high quality relative to volume
- Income tax data (receipts):
 - Filed on an annual basis
 - Minor editing: Basic rounding
 - No imputation
- Payroll tax data:
 - Most businesses file on a quarterly basis– Q1, Q2, Q3, Q4
 - Some smaller businesses file on an annual basis
 - Internal IRS processing can result in issues for the BR:
 - Data can be received out-of-sequence (e.g., Q3 before Q2)
 - Data can contain capture-related errors (e.g., OCR misreads)
 - Editing and imputation is done to:
 - Check for seasonality– indicators based on historic trends
 - Fill in “missing” quarters (for non-seasonal businesses)
 - Adjust abnormally low quarterly values (for non-seasonal businesses)
 - Allocate annual data to a quarterly basis– generally divided equally
 - Imputation rate for payroll is low (< 5%)

Company Organization Survey (COS)

- Register proving and company profiling survey sent to selected MU enterprises and a small number of SUs
- Primary objective is to capture changes in organizational and operational status
 - 42,000 multi-unit (MU) enterprises (25 percent of all such enterprises)
 - 1.4 million affiliated MU establishments (75 percent of all multi-unit establishments)
 - ~5,000 single units (SUs) with indication of multi-location activity
- Annual survey initiated in December of the reference year with collection and processing that typically spans January - August
- Not conducted in Economic Census years

Company Organization Survey

Impact on BR unit linkages– NC-99001 Item 5A

- EIN changes
- Changes in operational status– e.g., ceased operation
- Changes in ownership– location sold to a new parent enterprise

Company Establishments and Subsidiaries <i>(Add store or plant number, if any, and correct any errors or omissions.)</i>			Employment and Payroll			Operational Status at the End of 2011 <i>(Mark "X" only ONE box.)</i>			
(a)			(b)			(c)			
Line No.	EIN	NAICS	2011			<input type="checkbox"/> In operation	<input type="checkbox"/> Temporarily or seasonally inactive		
Major activity			Number of employees for pay period including March 12			<input type="checkbox"/> Ceased operation - Give date →	Month	Day	Year
Name			First quarter payroll (January-March 2011)			<input type="checkbox"/> Sold or leased to another operator - Give date above AND enter name and address of new owner or operator below ↴			
Secondary name		Store/Plant No.	\$Bil.	Mil.	Thou.	Name of new owner or operator			
Physical location (Number and street)						Mailing address (Number and street, P.O. box, etc.)			
City, town, village, etc.		State	2011						
		ZIP Code	Annual payroll			City, town, village, etc.		State	ZIP Code
			\$Bil.	Mil.	Thou.				
						<input type="checkbox"/> Other - Specify →			

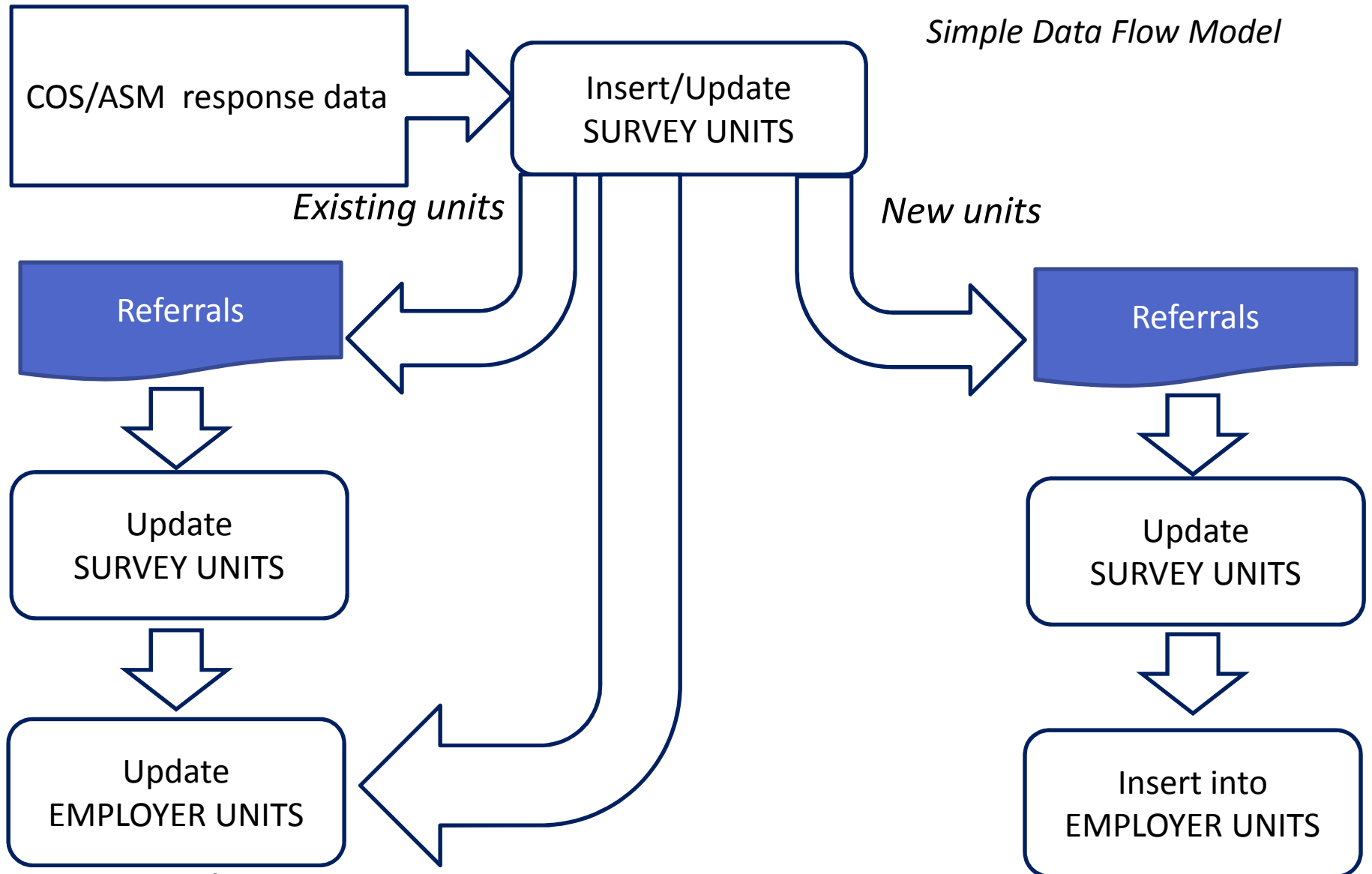
Company Organization Survey

Identifying new BR units– NC-99001 Item 5B

5 B. ADDITIONAL LOCATIONS OF OPERATION - Continued											
(a) Company Establishments and Subsidiaries				(b) Employment and Payroll			(c1) Major Activity in 2011				
EIN				2011			Code				
[] [] - [] [] [] [] [] [] [] []		Number of employees for pay period including March 12			[] []		Specify →				
Name				[] [] [] [] [] []			(c2) Former Owner or Operator				
Secondary name			Store/Plant No.	First quarter payroll (January-March 2011)			Name of former owner or operator				
Physical location (Number and street)				\$Bil.	Mil.	Thou.	Mailing address (Number and street, P.O. Box, etc.)				
				[] [] [] [] [] []							
City, town, village, etc.		State	ZIP Code		2011			City, town, village, etc.		State	ZIP Code
					Annual payroll						
Date establishment opened or is expected to open	Month	Day	Year		\$Bil.	Mil.	Thou.	Date acquired		Month	Year
[] [] [] [] [] []	[] []	[] []	[] [] [] []		[] [] [] [] [] []	[] [] [] [] [] []	[] [] [] [] [] []	[] [] [] [] [] []		[] []	[] [] [] [] [] []

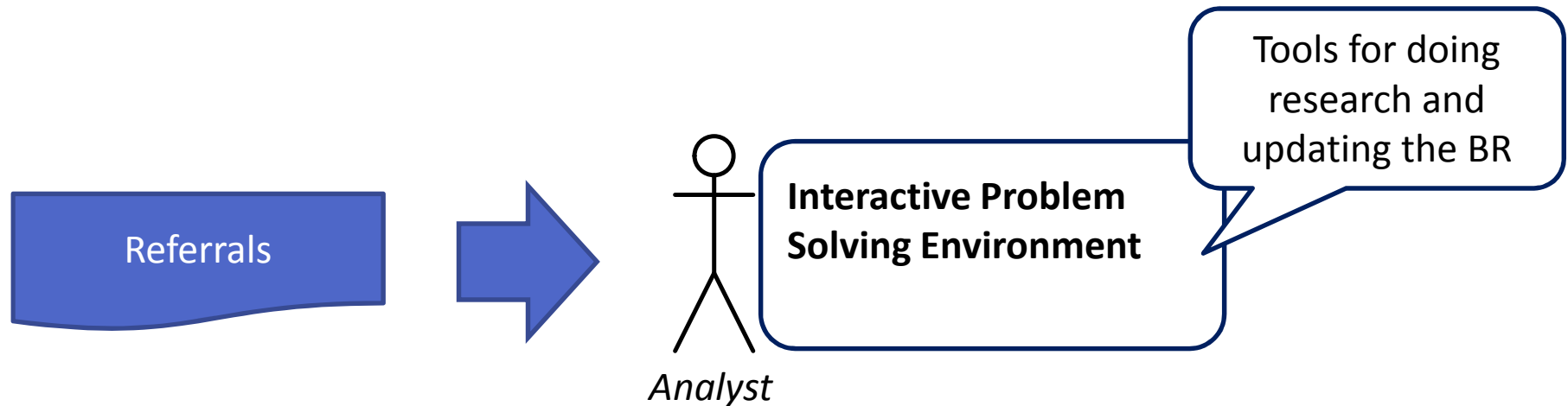
Company Organization Survey

Simple Data Flow Model



Company Organization Survey

Referrals are cases identified during processing of response data that require the attention of a BR analyst



Examples:

- Locating the successor company of an establishment reported as sold
- Verifying that newly reported establishments do not already exist on the BR
- Correcting erroneously reported payroll or employment values

Processing of COS response data and referrals is done daily from January through August

BR Re-engineering Timeline

