U.S. CENSUS BUREAU

Co-employment and the Business Register:

Impact and Solutions

Brandy L. Yarbrough

July 31, 2013

Abstract: The increasing popularity of employee leasing and co-employment arrangements have had a definitive impact on the quality of the Census Bureau's Business Register (BR) and its statistical data products. This paper explores the consequences of employee-leasing and, specifically, co-employment arrangements in the context of the current BR operational model. It also describes efforts to mitigate the adverse effects of these business trends on BR statistical unit coverage as well as the underlying quality of employment and payroll measures. Central to these efforts is a data-sharing arrangement recently implemented by the Census Bureau and the Bureau of Labor Statistics (BLS). Among other types of data, this agreement provides the Census Bureau with access to the list of clients of Professional Employer Organizations (PEOs) as compiled through the Quarterly Census of Employment & Wages (QCEW) program that is conducted by the BLS. The particulars of how the Census Bureau utilized these data experimentally to improve BR statistical unit coverage and data quality for the 2012 Economic Census are discussed in this paper as are the plans for future expansion into larger-scale operational uses.

Introduction:

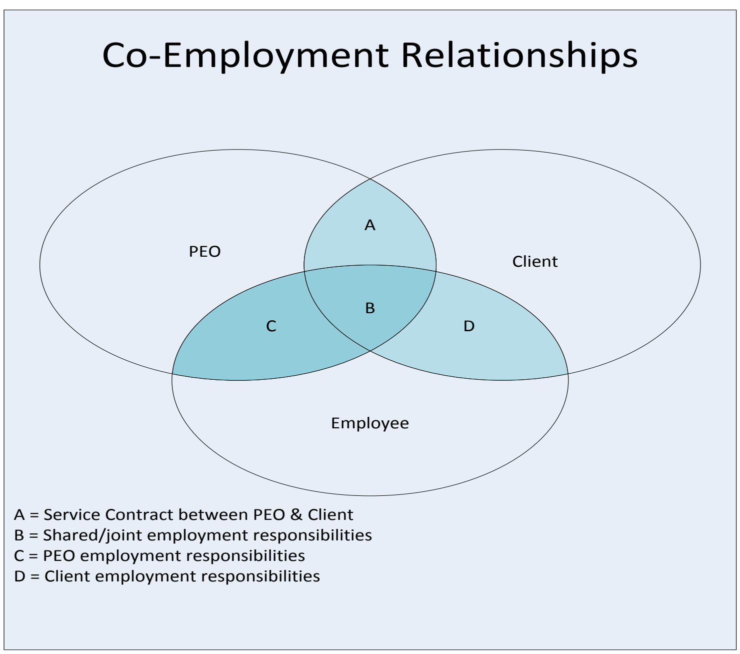
This paper explores the impact of co-employment on the Census Bureau's Business Register (BR). It begins with a brief overview of the concept of co-employment as well as an introduction to essential BR terminology and concepts. It then looks at how co-employment impacts BR statistical unit coverage and data quality. Finally, the paper examines the efforts to mitigate these impacts and improve the BR. It should be noted that an important element in these efforts is a data-sharing arrangement between the Census Bureau and the Bureau of Labor Statistics (BLS) who each maintain their own independent business registers in trying to fulfill the primary missions of their agencies. While many countries have highly centralized statistical programs, this is not the case in the United States. An unfortunate by-product of U.S. statistical program decentralization is that data-sharing between agencies is often quite difficult. The co-employment issue discussed in this paper is just one example of how interagency data-sharing and cooperation can be beneficial in improving overall statistical program quality.

1. Co-Employment: A Brief Overview

While it is not the intent of this paper to provide an exhaustive detailing of all aspects of co-employment, a basic understanding of the concepts and terminology is useful before its impact on the BR can be explored.

Concept: Under a basic co-employment arrangement, two different entities have an "employment relationship" with a worker. These two entities are: (1) A *Professional Employment Organization* (PEO) and (2) a *client*. These entities typically have a contractual relationship with each other and have both shared as well as distinct responsibilities with respect to the employees.

The diagram below summarizes the basic relationship among the PEO, client, and employee in a co-employment arrangement.



It should be noted that unlike traditional employee-leasing arrangements which tend to focus on supplying temporary, short-term labor, a PEO usually does not provide any “new” employees to its clients. Rather, the PEO is a service-provider, offering expertise in various aspects of human resource management and administration. When a client company enters into a contract with a PEO it effectively “outsources” the management of many of these functions, including paying wage and employment taxes to federal and state authorities as well as the filing of all associated reports. This allows the client company to focus on the core competencies of their business rather than become mired in the often complex and time-consuming issues of employment regulations, government reporting compliance, and similar such burdens. For its part in the employment relationship, the client business is still responsible for directing day-to-day operations and providing its employees with the tools, training, and safe work environment needed for productivity.

While contracting with a PEO can be advantageous to the client business, the arrangement can also prove beneficial to the employees. Since a PEO is focused only on the “business of employment”, it can take on many different clients from a diverse range of industries. This allows PEOs to develop “economies of scale” in terms of offering benefits packages that might not otherwise be available at a given client worksite.

Scope: In order to put the scope and magnitude of co-employment into perspective, below are some facts and figures provided by the National Association of Professional Employer Organization (NAPEO) [1].

- The PEO industry generated more than $80 billion in revenue in 2010. [2]
- It is estimated that there over 2 million workers that are involved in a co-employment arrangement. [3]
- The average PEO client business has about 19 worksite employees.

One critical aspect of co-employment with respect to its impact on the BR is the fact that the PEO takes responsibility for filing payroll taxes for client worksite employees. This filing is typically done under the Employer Identification Number (EIN) of the PEO. The ramifications of this will become evident after the brief primer on the BR statistical units and operational framework that is provided in the ensuing section.

[1] Data were taken from the NAPEO website (http://www.napeo.org).
[2] Revenue and employment estimates provided by NAPEO are generally consistent with what the U.S. Census Bureau published for NAICS industry 561330 in the 2007 Economic Census and the 2011 County Business Patterns (CBP) report.
[3] To put this in further perspective, the 2011 CBP report published a figure of over 113 million employees across the U.S. in all covered NAICS sectors. Therefore, the 2 million co-employed workers translates into about 1.8% of total U.S. employment.

2. Basic BR Terminology and Operational Framework

In general, a particular BR statistical unit will be included in one of two mutually exclusive universes: It will either be counted as an *employer* or, conversely, as a *non-employer* business. As the names imply, an employer business is one that has paid employees while a non-employer one does not. Most non-employers are unincorporated businesses that are run by self-employed individuals. In terms of simple unit counts, non-employers far outnumber employers on the BR—about 22.5 million vs. 7.5 million. However, in terms of productivity and output measures, employer businesses are clearly dominant and therefore take the focus of most of the Census Bureau's economic statistical programs and surveys.

The BR's employer universe can be further divided into *single-establishment* and *multi-establishment* businesses. A single establishment business, often referred to as a "single unit" or simply as an "SU", is an enterprise that provides goods or services at one physical location. On the other hand, a multi-establishment business, known also as a "multi-unit" or "MU", operates at multiple locations under common ownership. The SU vs. MU distinction does to apply to non-employer businesses—they are all considered to be single-establishment enterprises[1].

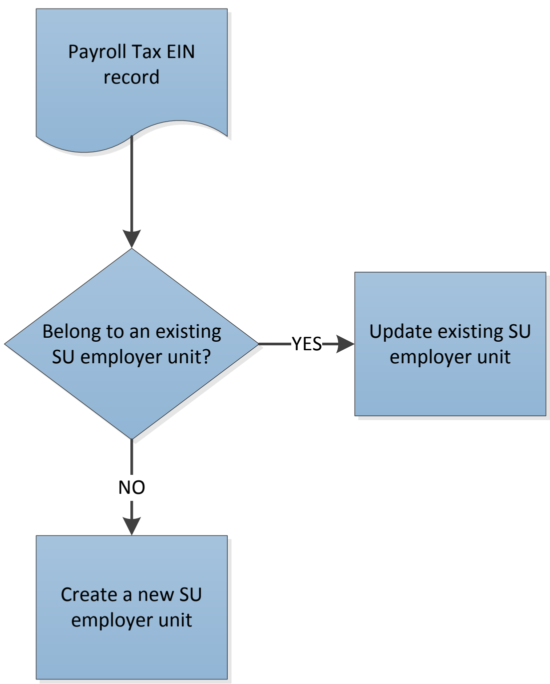
One of the critical foundations of BR statistical unit coverage and data content are the *administrative records* that are supplied to the Census Bureau by other government agencies. In particular, the payroll tax and business income tax records provided by the Internal Revenue Service (IRS) are absolutely vital to the construction and maintenance and both the employer and non-employer business universes. In fact, it should be noted that the BR's non-employer business universe is constructed, updated, and maintained entirely from IRS business income tax data. The employer universe is maintained via a combination of the tax data as well as the Census Bureau's own sources of survey data. The MU portion of the employer universe is updated almost exclusively via the Census Bureau's own surveys as well as through the Economic Census. In contrast, the tax data are of paramount importance to the SU portion of the employer universe even when the Census Bureau undertakes large-scale surveys of these units.

In incorporating the tax data into the BR, various operational rules are applied to it that are designed to: (1) identify new businesses—i.e., "births", (2) determine when businesses have ceased operation—i.e., "deaths", (3) determine the primary business activity and legal form of organization, (4) determine survey or program scope, (5) update key business identifiers such as company name, mailing address, and physical location, and (6) provide indicators business size and relative importance. Also implicit in these operational rules is the determination of whether a business is to be counted as an SU employer unit or a non-employer. Additional details on how the tax data are used for BR statistical unit maintenance are provided below.

[1] In practical usage, the terms "single unit" and "SU" are almost always reserved for single-establishment **employer** enterprises. That is, non-employer businesses are rarely referred to by these terms. They are simply called "non-employers".

Creating SU Employer Units

Payroll taxes are filed under an employer's Employer Identification Number (EIN) which is a tax-paying entity assigned to a business by the IRS. Payroll taxes are typically filed and paid quarterly or, in the case of smaller businesses, on an annual basis. After their internal processing is completed, the IRS flows these files to the Census Bureau. Files arrive weekly and, among other variables, contain the total payroll and employment of each EIN for a given tax period. One of the BR operational rules is that when payroll data first appears for an EIN, a new SU employer unit gets created (a "birth"). This rule is illustrated in the diagram shown below.



It should be noted that this is currently the <u>only</u> mechanism for adding SU employers to the BR. So, in essence, the SU employer universe is defined by the payroll tax EINs for a given tax period. Conversely, if an EIN is used for reporting payroll tax it cannot be considered for inclusion in the non-employer universe.

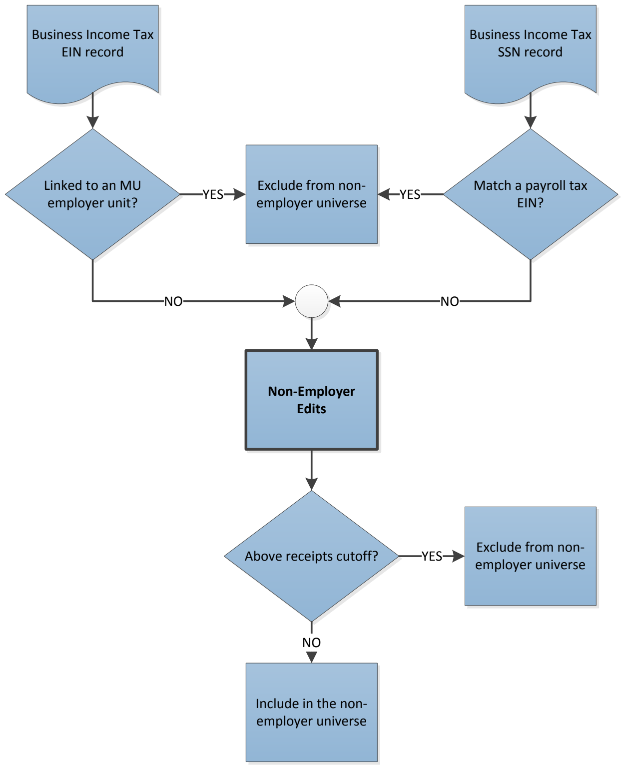
SU "Deaths"

If the payroll tax EIN of an SU does not show any payroll data for a given reference year, the business is effectively removed from the active employer universe. However, as will be shown below, if the SU has net receipts for the reference year it may still be included in the non-employer universe.

Identifying Non-employers

While the SU employer universe is effectively constructed from payroll tax EINs, non-employers are built from selected business income tax data. As with the payroll tax files, the IRS flows the income tax data to the Census Bureau on a weekly basis. Among other elements, these files contain gross and net receipts, revenue, or sales as well as industrial classification codes (NAICS). Depending on their legal form of organization, an enterprise may file their income taxes using an EIN or, in the case of sole proprietorships, the business owner's Social Security Number (SSN) via IRS Form 1040 Schedule C. Of course, employer businesses also file business income taxes under these entities. As a result, there are complications and challenges in separating non-employer income tax records from those of employer businesses. For example, sole proprietors that have paid employees will use an EIN for payroll tax reporting but can use their personal SSN for income tax purposes. When processing SSN income tax entities, efforts are made to match them to payroll EINs in order to properly exclude them from the non-employer universe [1]. Further, some incorporated MU businesses file consolidated income tax reports under a single EIN that may cover multiple payroll EINs. This consolidated income tax EIN is typically separate and distinct from those used for payroll tax reporting and while many of them are correctly associated with MU employer businesses on the BR, the linkages are not necessarily complete or totally accurate. As a consequence, some of these consolidated income tax EINs could get included in the non-employer universe. Due to this issue—as well as the inexactness of the sole prop matching mentioned above-- the Census Bureau has developed a series of rules and edits to further define a non-employer business. These edits make use of net receipts cutoffs and the NAICS codes to identify probable employer businesses and exclude them from the non-employer universe. For example, it is highly unlikely that a labor-intensive business like a sit-down restaurant would have more than $1 million in net receipts yet have no paid employees. The diagram below summarizes the basic rules defining the non-employer universe.

[1] The matching is done by using business names, addresses, and other characteristics that are present on the EIN and SSN entities. As with most matching efforts of this nature a certain amount of error is inherent.

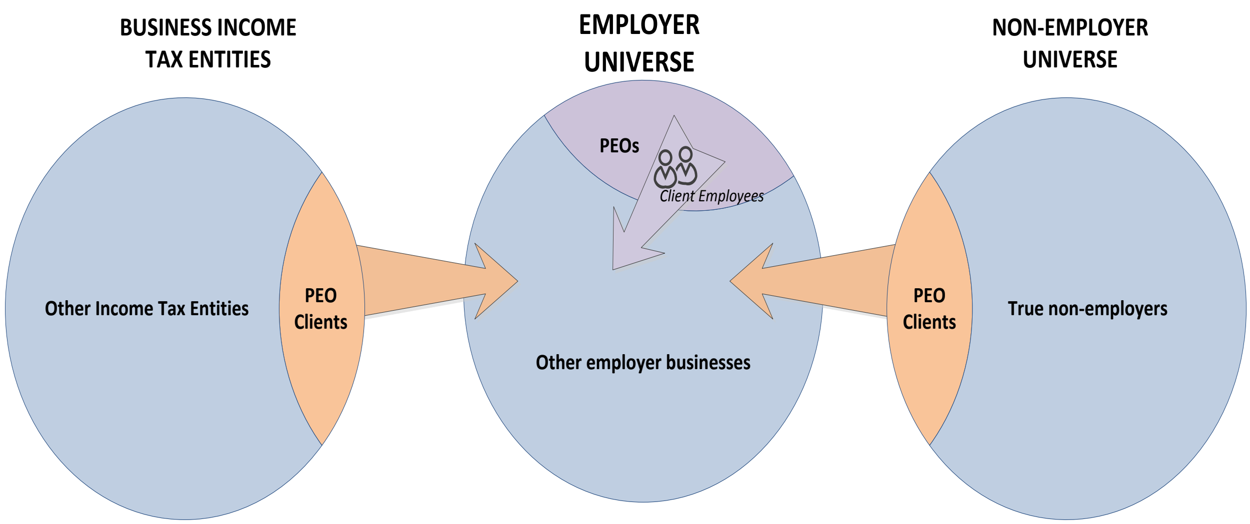


3. <u>Co-employment and the BR</u>

In a co-employment arrangement, the PEO is often considered the "employer of record" for purposes of reporting and remitting payroll taxes to the IRS. This may be done under the EIN of the PEO rather than those of the client. As a consequence, a client that may have been previously defined as SU employer business on the BR will drop out of this universe[1]. Similarly, a new business that begins life as a client of a PEO will never be included in the BRs employer universe because they do not file payroll taxes under their own EIN. Essentially, one of two things happens to PEO clients on the BR: (1) they are improperly included in the non-employer universe or (2) they are counted neither as an employer nor a non-employer. In addition to the challenges with statistical unit coverage and accuracy in the BR universes, there are also issues with the counting and distribution of employment and payroll data. Since a PEO functions as the employer of record, all of the employment and payroll data of its client businesses are attached to the BR statistical unit that represents the PEO business. So while the BR may capture all of the employees of the PEO clients in a global sense, they are not properly allocated to the physical locations or industries in which the client's are actually conducting business. This, of course, has an impact on the quality of any statistical aggregates that are compiled by industrial classification and/or geographical dimensions.

[1] MU businesses that switch from managing their own payroll to a co-employment arrangement in which the PEO handles this task are typically maintained on the BR and remain in the employer universe. Employment and payroll are imputed or derived from historical data. Such businesses are typically identified through the Census Bureau's annual Company Organization Survey which contains an enterprise-level inquiry on leasing employees from a PEO.

So, ideally, the Census Bureau would like to include PEO client businesses as separate and distinct employer units in the BR and also avoid "double counting" payroll and employment data that may be being reported by the PEO business itself. In addition, the bureau would like to exclude any PEO client businesses that are incorrectly being included in the non-employer universe. These objectives are summarized by the diagram shown below.



4. <u>Seeking Solutions</u>

In a perfect world, one could select or sample the business income tax entities that are eligible for inclusion in the non-employer universe. Questionnaire instruments could be developed to capture the affiliation of these entities with a PEO or an existing BR employer unit business. Through post-collection processing and analysis of response data, the surveyed units could be added to the BRs employer universe, properly linked to an existing MU parent enterprise, or confirmed as a true non-employer business. Further, reported payroll and employment of PEO clients could be subtracted from the employer units that represent the PEO businesses thereby removing the duplication of these data on the BR. Alternatively, —or perhaps, complementarily-- one could survey the PEO businesses themselves and request that they provide a list of their clients, including key identifiers such as company name, physical location address, and EIN as well as their payroll and employment. Unfortunately, the Census Bureau is far from operating in a perfect world environment. Rising costs, limited resources in terms of budget and staffing, and increasing concerns regarding undue respondent burden are all real-world factors working against the implementation of a survey that would identify PEO clients and capture their employment. The costs of doing such a survey would likely be ongoing in nature-- due to the dynamic nature of the business environment and the fact that PEO clients can switch between being traditional employers and co-employers it is assumed that a survey program with a minimum annual frequency would be needed in order to be beneficial to BR data users. In addition to cost, there are also uncertainties regarding the Census Bureau's right to use its federal authority to directly collect data about a particular company from a different, wholly distinct legal entity when there is no change in ownership between the parties involved. Due to these considerations, the immediate efforts in trying to better integrate PEO clients into the BR have focused on exploiting existing sources of data.

IRS Possibilities: Initial efforts in trying to isolate PEO clients were done using additional data available in the IRS business income tax return files. In particular, it was thought that the salaries and wages deduction amount that is reported on income tax forms might be of value in identifying PEO clients. The basic idea was that the PEO client business would be taking this deduction for income tax reporting purposes (using its own EIN) even though the PEO company had filed the payroll taxes (under the EIN of the PEO) as per their co-employment contract. Hence, any EIN entity that had the salaries and wages deduction but no corresponding data from payroll tax returns could theoretically be a PEO client or, at the very least, leasing all of their employees from a third party. Unfortunately, analysis of these data yielded inconclusive results and did not present a clear-cut approach for identifying PEO clients. For one thing, there is apparently wide variability in the way that "employee leasing expenses" are reported on the income tax returns as many companies seem to combine them with "Other Deductions" instead of providing them as a separate line item. Further, even in instances where these data are useful in identifying PEO clients, no connection between the PEO and client business is provided for purposes of removing duplication in employment.

BLS Data: As part of its Quarterly Census of Employment and Wages (QCEW) program, the Bureau of Labor Statistics (BLS) obtains data reported to the state agencies that administer unemployment insurance (UI) programs [1]. Each of the individual state governments (including those of the District of Columbia, Puerto Rico, and the U.S. Virgin Islands) administer these programs in accordance with its own state laws and regulations. Some of the states require PEOs to list their clients individually when doing UI filings on their behalf. The data provided for each client business includes not only their connection to a particular PEO but may also provide their physical location addresses, employment and payroll measures, industrial classification, and EIN formerly used for payroll tax reporting prior to entering into a co-employment contract. As such, this would be a most opportune data set for use in trying to resolve the aforementioned issues of BR universe coverage and employment distribution. Unfortunately, until quite recently, the Census Bureau has not had access to these data.

Data Sharing: In November of 2012, the Census Bureau and BLS began exchanging data under a memorandum-of-understanding (MOU) that provided each agency access to selected information extracted from the other's operational databases. Among other things, the MOU provides the Census bureau with access to the aforementioned list of PEO clients.

5. Using the BLS data

Unfortunately, the implementation of the data sharing arrangement began at a time when the Census Bureau was in the midst of ramping up its collection and processing systems for the 2012 Economic

[1] It is not the intent of this document to cover the particulars of the QCEW program or state UI administration. The author is familiar with these topics only in the most basic sense and that they are the source of the PEO client data provided to the Census Bureau by BLS in their data sharing arrangement. Much more information on the QCEW program is readily available at http://www.bls.gov.

Census (EC). This timing meant that any comprehensive, automated operational use of the BLS-supplied PEO client data in order to improve the 2012 EC tabulations would not be feasible. Nonetheless, it was recognized that the collection and support infrastructure of the EC provided a good opportunity to validate these new data in a survey environment and gauge the reaction of this new population of businesses. The ensuing information explains what was done to add selected PEO client companies to the BR and mail them in the 2012 EC. It also presents some general observations on the quality and completeness of the response data and provides some information on the processing, imputation, and organization of the payroll and employment values on the BR for the PEO clients.

Adding PEO Clients to the BR: Given the time and resource limitations, it was decided that approximately 1,000 of the largest PEO clients in terms of annual payroll would be set up on the BR using interactive tools that are readily available for creating new companies[1]. Further, once the PEO client businesses were added to the BR as statistical units, they would then be mailed in the 2012 EC and any response data would be included in resultant tabulations.

The table below summarizes the progress of this special collection effort as of July 31, 2013. It shows the response coverage in terms of units (establishments) as well as the employment and payroll data found in the 2011 BLS PEO client file[2] and 2012 total receipts taken from the IRS income tax records.

Description	Units		2011 BLS				2012 IRS	
			Employment		Payroll		Receipts	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Added to the BR and mailed	1,026	100.00%	48,818	100.00%	3,546,312	100.00%	17,435,734	100.00%
Response coverage	336	32.75%	17,107	35.04%	1,243,806	35.07%	7,033,494	40.34%

Payroll and receipts data are shown in thousands of dollars

It should be noted that the relatively low response of these cases is most likely due to the fact that they were excluded from all EC follow-up activities. This was a direct consequence of these cases not being on the BR at the time of initial EC mail selection[3].

Observations of Response Data: Even though only 336 of the companies have responded to-date, there are some interesting observations to be gleaned from their data. These are explored below:

[1] These tools are part of a comprehensive set of interactive routines that are used for BR research and problem-solving in the resolution of survey and EC referrals. One of these routines allows for the creation of a new enterprise.
[2] The 2011 data were the latest made available to the Census Bureau.
[3] The PEO client companies were actually mailed via a correspondence program which effectively provides a "mail-on-demand" capability. The typical usage of this program is in re-mailing MU companies that have been substantially restructured after their originally mail packages have been delivered. The impetus for these re-mails is usually respondent-driven and, as a result, they are typically excluded from receiving late notices.

- There were 159 cases (about 47%) that reported annual payroll and/or March 12th employment. This was somewhat unexpected given that the EC instructions for these items say to only include employees…

  ...whose payroll was reported on Internal Revenue Service Form 941, Employer's Quarterly Federal Tax Return, and filed under the Employer Identification Number (EIN) shown to the left of the mailing address

  The EIN "shown to the left of the mailing address" was that of the client business rather than that of the PEO. So, if following the instructions explicitly, the clients should have reported "0" for these elements or left them blank. It is assumed that this was the course of action for the remaining 53%. Regardless, it is clear that if these PEO client businesses are to be included in future EC collections (or in surveys that collect payroll and employment) then the reporting instructions will need to be modified in order to mitigate confusion in the reporting of these data.

- The fully processed aggregated totals (including imputation for missing or erroneous data) of the 2012 EC annual payroll and March 12th employment are reasonably comparable to the corresponding elements in the BLS PEO client file for 2011. Similarly, the 2012 EC aggregates for total receipts compare favorably to the corresponding values available from the 2012 IRS income tax files.

  The table below summarizes these comparisons:

Data Element	2012 EC	2011 BLS	2012 IRS
March 12th Employment	19,704	17,107	n/a
Annual Payroll	1,387,760	1,243,806	n/a
Total Receipts	7,148,520	n/a	7,033,494

  Payroll and receipts data are shown in thousands of dollars

  These comparisons indicate that the overall EC data reported by the 336 PEO client companies are likely to be of comparable quality to other populations of establishments reporting in the EC. In particular, the data for total receipts suggests that the various other output measures and key items used for industrial classification are also likely to be of sound quality.

Imputation: Despite the low response and the fact that many of the 336 companies received did not report employment and payroll, it is expected that all 1,026 cases will be included in the EC tabulations. Both non-response cases and those with missing data will have their 2012 employment and payroll data imputed using the 2011 BLS data as the basis. These data were attached to the BR statistical units in the 2011 reference year when they were added to the BR. Essentially, industry-based inflation factors[1] will be applied to the 2011 BLS data in order to create 2012 estimates. Missing data for response cases will be imputed on a flow basis as the cases are received while non-responses will be handled once the EC has closed out processing in late October 2013. Imputation of additional items will be done via the

[1] These inflation factors were developed for general 2012 EC processing and were not specifically designed only for the PEO client businesses.

same methods that are applied to other populations of EC non-responders and missing value cases. For example, the IRS data will be used as a proxy for total receipts for all non-responders.

Data Organization: One of the distinguishing characteristics of the PEO client establishments on the BR will be that their payroll and employment values will be stored in variables that are separate from those used by the traditional employer businesses. This will allow for separate analysis and treatment of PEO client businesses.

Data Duplication: Any duplication in employment and payroll that exists between the PEO businesses and the 1,026 clients will have to be addressed manually through the use of BR interactive correction tools. The connection between a PEO and its clients is derived from the BLS-provided data and a separate concordance file of unique BR identifiers was created. The unique BR identifier for the clients was assigned systematically when they were added to the BR while that of the PEO was located by matching the company name, address, and EIN to correlating fields on the BR. The BR identifier concordance can be used to adjust the data of the PEO company accordingly. This work will likely be done in late October of 2013 once EC collection and processing activities have concluded and all non-response imputation has taken place.

Conclusions: Although small-scale and highly labor intensive, this initial experiment in using the BLS PEO client list to improve BR coverage and EC tabulation quality has been highly useful in demonstrating the real potential that these data could have in an operational setting. Of course, in order to reap the full benefit of these data the Census Bureau will need to invest in enhancing its processing infrastructure so that the PEO clients can be incorporated into to the BR in a more automated way.

6. <u>Future Direction</u>

As described in the preceding section, a great deal of manual effort was required in order to add 1,026 PEO client businesses to the BR. Given that the complete list of PEO clients from BLS contains in excess of 100,000 cases it is clear that a more automated and production-oriented approach is needed if the Census Bureau is going to be able to fully exploit these data in a continuous and cost-effective manner. A beneficial by-product of the efforts taken with the 1,026 cases was that this work essentially highlighted the general requirements of such a a systematic approach. The basic elements of a system designed to process the BLS PEO file and incorporate the data into the BR are outlined below:

- Identify the client business on the BR. Where available in the BLS file, the EIN of the client can be used for direct matching. Otherwise, names and addresses will need to be used for matching. In an automated setting, this may lead to some sort of scoring or probabilistic matching.
- For successfully identified clients, determine if a BR statistical unit already exists and, if not, create one.
- Attach employment and payroll data from the BLS file to the newly created PEO client statistical unit.
- Identify the PEO business on the BR. There should already be a statistical unit on the BR representing this business.
- Create a link between the PEO statistical unit and the client statistical unit.
- Adjust the employment and payroll data of the PEO accordingly.

In addition, modifications will need to be made to the systems that process the IRS payroll tax data so that PEO clients that revert back to being traditional employers are handled appropriately on the BR.

Ideally, the system described above would run annually in conjunction with the Company Organization Survey (COS) so that newly created statistical units would be available for sampling in the Census Bureau's current survey programs and inclusion in the County Business Patterns (CBP) tabulations.

Limitations: In addition to the substantial amount of development work inherent in the system described above, there are some other limiting factors with using the BLS-provided PEO client data to improve BR coverage. Most notably, due to restrictions imposed by some state governments, the Census Bureau does not have access to all of the data that are available. Further, as indicated earlier, state laws vary with respect to whether or not PEOs are required to list their clients individually in UI reporting. Both of these factors obviously limit the content of the BLS-supplied file and the degree to which BR coverage and data quality can be improved. Regardless, these data still represent the best available and most cost-effective way for the Census Bureau to address the PEO clients. If budget and resources allow it may also be prudent to supplement the BLS data with a survey in order to further reduce gaps in the coverage of these businesses.