Business Inventory
File Geodatabase Feature Class

Tags
Businesses, Business, Occupational License, Emergency Operations Center, BTR AWI, InfoUSA, The Balmoral Group

Summary
1.0 Background Seminole County initiated this project to have a data set of businesses to quickly access in an emergency. The Business and Industry Support Function is within the Emergency Operations Center, through which this project was administered for invoicing. The Business Inventory is the last of 18 categories. Funding source for this project was Homeland Security. The objective of this project was to establish one new standalone data base from existing and new available data. Data sources included Occupational License Data, (hereafter, "BTR") which had about 29,000 observations, AWI/ES 202 file ("AWI"), with about 15,000 records, and InfoUSA data, which was acquired by The Balmoral Group and included about 17,000 records, for a total original dataset of approximately 61,000 observations.  

2.0 Identify and Verify Business Resources included in Scope Utilizing these data sources, a listing was developed of all business within Seminole County. This list was developed through matching processes which included a number of decision rules. The process began by comparing the BTR, InfoUSA and AWI data for direct matches of business names. Secondary matches included address and telephone number matches, first name-word and street number matches, and string queries, to identify partial matches among misspellings or data that was entered in slightly different form originally. Data provided by each of the data sources often conflicted. At a series of status meetings and telephone calls, various decision rules were reached to resolve these conflicts and choose a preferred data source in the absence of verifiable information. These included the following: • If business names conflicted, Business Tax Receipt data governed if available, and if not, AWI data; • Home-based businesses were identified by cross-matching with DOR GIS files for Residential addresses, and removed from the dataset as out of scope; • In some industries, individual practitioners were listed in addition to their employer – for example, individual realtors, financial planners, etc. These individuals were removed from the dataset when it was possible to identify them; • A small number of businesses operate on a nomadic basis out of their vehicle, such as mobile car-washing businesses. These businesses were removed from the dataset as out of scope. After matching at least two secondary fields from the three datasets, approximately 31,000 firms were identified as valid Seminole County businesses. Of these, 12,422 were identified as “out of scope” and removed from the dataset; records removed included home-based businesses, individual realtors and financial planners, and mobile businesses. There were approximately 8,400 records from the original BTR dataset which represented the sole observation for a particular business, based on business name and address; these were added to the final dataset even though they did not meet the match query criteria. Repeated efforts to “dedupe” this set against the matched set resulted in the deletion of legitimate businesses with very similar names, and were abandoned. Hence, some of these records will be redundant, but QC processes found a very small number of redundant occurrences. The resulting dataset included about 19,000 firms, of which approximately 700 were identified as ESF-18 critical. Later processes identified a number of duplicate references in the Critical ESF-18 dataset, which further reduced this number to 472. The scope defined certain business categories as ESF-18 Critical, comprised of the following list: • Pharmacies • Lodging (Hotels and Motels) • Food Grocers • Hardware Stores • Tree Removal and Services • Home Healthcare, O2, Intravenous, Wheelchairs • Pest Control • Damage Control / Mold Remediation • Veterinarian Clinics and
Kennels • Marina • Boat/Airboat • Medical Centers • Assistant Living Facilities • Nursing Homes • Construction Trades, including Earthmoving, Roofing, and Heavy Equipment firms For these business categories, personal contact was required with at least 50% of the businesses in each category. Contact was made to verify business information, gain after hours contact information, and gather data related to various capacity measures for each business type. The capacity measures captured included the following: 1. Nursing Homes, Assisted Living Facilities, and Hotels/Motels - number of rooms, whether pets were allowed, any restrictions on pets 2. Boats/airboats – Fleet Count. 3. For Home Health Care - # of Employees, Equipment Type. 4. Veterinary Services - Contact & # Cages. 5. Tree Services/Roofer/Related contractor-type businesses - # Machinesand Type. 6. For Medical Centers – employee positions. 7. Pharmacies – contact person. 8. For Supermarket/Hardware Store – contact person. The Seminole County Chamber of Commerce agreed to host an email survey using their internal database of email addresses. A draft survey was prepared and submitted for approval by Seminole County. This survey was used to gather information for Hospitals, Medical Centers, Pest Control, Hotels, Grocers, Home Health Care, Senior Living and Roofing businesses. Due to a limited number of available email addresses in these industries, responses were received in the Hotels, Senior Living, and Roofing categories. Telephone surveys were employed to obtain data in all categories for at least 50% of the businesses in each category. Despite assurances that this information was collected for Seminole County Emergency Management and/or Economic Development purposes, several businesses were reluctant to provide after hours contact information, because it included personal cell phone numbers or their company policies forbid sharing this information. Several firms requested validation of the contractual relationship with the County, and copies of the award letter from Seminole County Purchasing were faxed to those firms. At project completion, successful contact was made with 57% of confirmed Critical ESF-18 firms. 3.0 Compile and Verify Final Dataset All validated records were saved in a final dataset. Verified ESF-18 records were added to the dataset with verified information overwriting raw data where appropriate. Once the dataset was assembled, steps were taken to finalize the data and perform quality control measures. These included: 1. Ensuring consistency in case and address references 2. Preparing address fields in both concatenated and separated format 3. Elimination of special characters 4. Manually verifying major business information using Major Employers list and all firms in dataset with more than 50 employees 5. Reviewing franchise/chain and bank data manually 6. Manually reviewing non-match dataset for patterns by NAICS code or number of employees to identify outliers 7. Performing a NAICS code-BTR description crosswalk to enter NAICS codes for all BTR records; BTR did not contain NAICS codes, and contained many unique industry codes, such as “Selling Asphalt Maintenance” or “Selling Information”. A BTR-NAICS crosswalk table was generated to assign NAICS codes to BTR records based on the available information, which was often not a perfect fit. 8. Tracing a random sample of records (31) from each original data set through all processing steps to ensure that records ended up in the correct final dataset 9. Checking all Critical ESF-18 telephone number data against original survey verification input for accuracy 10. Checking all Critical ESF-18 telephone number data against original survey verification input for accuracy 11. Performing multiple processes to eliminate redundant records 12. “Cleaning” non-matched data to eliminate as many matched records as possible, resulting only in records that could not be matched with any other records and did not reflect a BTR record 13. Preparing queries in accordance with status meeting requests, including by Critical ESF-18 category, certain industry clusters, and firms with 10-99 employees. 14. Preparing three final datasets: a. Business Resource Inventory, containing all businesses with confirmed (“matched”) data, in which Critical ESF-18 records are flagged; b. ‘Critical ESF-18’, containing only Critical ESF-18 data, with additional contact information; and c. Discard data – unverified potential business records’, containing records which were not from BTR, and were unable to be verified against any secondary source as actual businesses. In many instances, these may simply be old data that has been superseded by business records in the Business Resource Inventory which contain current, actual business information. 4.0 Testing and Documentation During assembly of the final dataset, a sample dataset and query were extracted and provided to Seminole County in SQL format to test for compatibility. The upload performed satisfactorily. Deliverables were prepared in Access database form, in accordance with the contract. Tables and Query language were also saved in SQL form, for upload to County IT staff. Finally, records were geocoded for use in GIS. The final database was copied to five CD’s for delivery to the County. Flowcharts were prepared outlining the steps to query Critical ESF-18 firms in a variety of ways, as well as firms which may hold special interest for Economic
Development staff.

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**Credits**
The Balmoral Group

**Use limitations**
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