

# COMS W4111-002 (Fall 2021)

## Introduction to Databases

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### *Homework 2: Programming Implement a Simple Database Engine*

#### *15 Points*

**This assignment is due October 22, 11:59 pm EDT**

**Note:** Please replace the information below with your last name, first name and UNI.

*Gupta Tushar, tg2749*

### **Submission**

1. File > Print Preview > Save as PDF...
2. Upload .pdf and .ipynb to GradeScope

**This assignment is due October 22, 11:59 pm EDT**

### **Collaboration**

- You may use any information you get in TA or Prof. Ferguson's office hours, from lectures or from recitations.
- You may use information that you find on the web.
- You are NOT allowed to collaborate with other students outside of office hours.

## **Part 1: Written & SQL**

### **Written**

Please keep your answers brief.

1. Codd's Fourth Rule states that: The data base description is represented at the logical level in the same way as ordinary data, so that authorized users can apply the same relational language to its interrogation as they apply to the regular data. In two sentences please explain this rule and why it is so important.

The rule says the below points:

- These metadata should also be stored as tables, rows and columns. It should also have access privileges, thus showing all properties of a database.
- We should be able to access these metadata by using same query language that we use to access the database.

It is important to ensure easy and standardised access/storage of database metadata without the need for additional tools and applications.

1. Give 3 examples of what would be stored in a database catalog

Below are the 3 types of metadata information we can find in a database catalog:

- USER\_PRIVILEGES: The different types of access and roles users have been given
- VIEWS : Any virtual queries that have been created
- COLUMN\_PRIVILEGES: It details the types of access to different columns across tables in the database

1. What is the SQL database catalog called?

SQL database houses the metadata information and is called "information\_schema" in MYSQL.

1. What is the overall goal of indices in SQL?

An index is used to make retrieving data from the table faster. It improves the performance of queries and applications. It is basically a quick lookup table for finding records users need to search frequently. Databases automatically create indexes to process primary, foreign and unique key constraints faster.

1. What are the differences between a primary key and a unique index?

**Unique key:** This type of key is used to uniquely identify a tuple in the table and differs from the primary key as it allows a NULL value. However, all values are unique (thus only 1 NULL value). It is generally used when we want to impose unique constraints on a column or set of columns when they are not the primary key.  
**Primary key :** By definition primary key only accepts unique values and cannot contain NULL. A table can contain only one primary key however it could be composed of multiple columns.

### 1. Which SELECT statement is more efficient? Why?

- `SELECT playerID,birthState,nameLast,nameFirst FROM people  
where birthCountry = 'USA' and nameFirst = 'John' and playerID in (select playerID  
from collegeplaying where schoolID = 'Fordham');`
- `SELECT playerID,birthState,nameLast,nameFirst FROM people NATURAL JOIN  
collegeplaying  
where birthCountry = 'USA' and nameFirst = 'John' and schoolID = 'Fordham' group by  
playerID,birthState,nameLast,nameFirst;`

HINT: SQL uses a query optimizer so you can't just run both of these and see which one performs faster.

The second query is faster as it uses a join on the 2 tables and basically goes over each of them exactly once. It then filters the resulting data to give the result. The time complexity is similar to  $O(m * n)$ . However, the first query searches for schoolID in collegeplaying table for each row of people table. This can lead to exponential complexity ( $O(n^m)$ ).

1. The create.sql file provided in the zip folder makes a schema and some tables that mimics metadata tables. Note there is the syntax "ON DELETE CASCADE" after the foreign key creation. What does this mean? Why do we want to specify CASCADE for the metadata tables? What does "ON DELETE RESTRICT" mean and when would we generally want to use this?

ON DELETE CASCADE constraint signifies that if a row in the Primary or the parent table is deleted it will automatically delete the corresponding value in the child table. It ensures there are no ambiguous scenarios, for eg: If we delete a column from the csvcolumns table, the corresponding row in the index should also be deleted as the column no longer exists.

RESTRICT is the default behaviour of the foreign key where it will throw an error if we try to delete a primary table row which has a corresponding entry in the foreign key table. We have to manually first delete from the child table and then from the parent table. This is important to maintain the foreign key integrity constraints. Otherwise, it could lead to cases such that a column\_name is deleted from the csvcolumns however, user forgot to delete the corresponding column\_name row from the csvindexes table.

## SQL

### 1. Initials

- Find the initials, firstName, lastName, for every player from the people table.
- You need to return 10 rows.
- Sort by the nameFirst, nameLast ascending.
- Note: Even for those players with two last names, just return the first letter of their first last name

Answer:

The below query adds a '\$' str in front of the last name if the first name is None

In [36]:

```
import pymysql
import pandas as pd
conn=pymysql.connect(host='localhost',port=int(3306),user='root',passwd='admin123', db
= 'lahmansbaseballdb')
pd.read_sql_query("select nameFirst as firstName, nameLast as lastName, CASE WHEN nameF
irst IS NULL THEN CONCAT('$', LEFT(nameLast, 1)) ELSE CONCAT(LEFT(nameFirst, 1), LEFT(n
ameLast, 1)) END AS initials from lahmansbaseballdb.people order by nameFirst, nameLast
limit 10;", conn)
```

Out[36]:

	firstName	lastName	initials
0	None	Boland	\$B
1	None	Booth	\$B
2	None	Carroll	\$C
3	None	Edwards	\$E
4	None	Evans	\$E
5	None	Franklin	\$F
6	None	Gavern	\$G
7	None	Harrison	\$H
8	None	Hellings	\$H
9	None	Higby	\$H

## Question 1a): Games Per Player using GROUP BY

- Find the yearID, lgID, games\_per\_player , for every year and league from the appearances table.
- Use a function to round down the games\_per\_player
- You need to return 10 rows.
- You must use group by in this query.

Answer:

In [ ]:

```
%%sql
```

In [37]:

```
pd.read_sql_query("select yearID, lgID, FLOOR(avg(G_all)) as games_per_player FROM appearances group by yearID, lgID limit 10;", conn)
```

Out[37]:

	yearID	lgID	games_per_player
0	1871	NA	19
1	1872	NA	20
2	1873	NA	28
3	1874	NA	34
4	1875	NA	28
5	1876	NL	37
6	1877	NL	33
7	1878	NL	41
8	1879	NL	45
9	1880	NL	45

## Part 2: CSVCatalog Tests

Once you have tested everything successfully in python, execute your tests one more time in jupyter notebook to show the expected output. You will need to restart your kernel after saving your python files so that jupyter will use the most recent version of your work.

You may need to drop tables before executing your tests one last time so you don't run into integrity errors

In [1]:

```
import unit_test_catalog as cat # This notebook should be in the same directory as your project
```

In [2]:

```
cat.create_table_test()
```

Running save core definition

```
Q = insert into csvtables values(%s, %s)
```

Running save core definition

```
Q = insert into csvtables values(%s, %s)
```

in the index if statement

```
Table = {"table_name": "test_table", "file_name": "./testing.csv", "indexes": []}
```

in the index if statement

```
Table = {"table_name": "test_table2", "file_name": "./testing2.csv", "indexes": []}
```

In [3]:

```
cat.drop_table_test()
```

```
Q = DELETE FROM csvtables WHERE table_name = 'test_table2'
Table 'test_table2' was dropped
```

In [4]:

```
cat.add_column_test()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where
table_name = %s order by index_name, index_order
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

In [5]:

```
cat.column_name_failure_test() # This will throw an error
```

issue!!

-----  
-

**ValueError** Traceback (most recent call last)

```
<ipython-input-5-342044887ceb> in <module>
```

```
----> 1 cat.column_name_failure_test() # This will throw an error
```

```
C:\PersonalFiles\Courses\IntroToDB\HW2\W4111_HW2_Programming\W4111_HW2_Programming\unit_test_catalog.py in column_name_failure_test()
```

```
79 def column_name_failure_test():
```

```
80     cat = CSVCatalog.CSVCatalog()
```

```
---> 81     col = CSVCatalog.ColumnDefinition(None, "text", False)
```

```
82     t = cat.get_table("test_table")
```

```
83     t.add_column_definition(col)
```

```
C:\PersonalFiles\Courses\IntroToDB\HW2\W4111_HW2_Programming\W4111_HW2_Programming\CSVCatalog.py in __init__(self, column_name, column_type, not_nullable)
```

```
49     if column_name == None:
```

```
50         print("issue!!")
```

```
---> 51         raise ValueError('You must have a column name!!')
```

```
52     else:
```

```
53         self.column_name = column_name
```

**ValueError:** You must have a column name!!

In [6]:

```
cat.column_type_failure_test() # This will throw an error
```

Issue!

```
-----
-
ValueError                                Traceback (most recent call las
t)
<ipython-input-6-eebf587b1ffc> in <module>
----> 1 cat.column_type_failure_test() # This will throw an error

C:\PersonalFiles\Courses\IntroToDB\HW2\W4111_HW2_Programming\W4111_HW2_Pro
gramming\unit_test_catalog.py in column_type_failure_test()
    89 def column_type_failure_test():
    90     cat = CSVCatalog.CSVCatalog(dbhost="localhost", dbport=3306, d
buser="root", dbpw="admin123", db="CSVCatalog")
---> 91     col = CSVCatalog.ColumnDefinition("bird", "canary", False)
    92     t = cat.get_table("test_table")
    93     t.add_column_definition(col)

C:\PersonalFiles\Courses\IntroToDB\HW2\W4111_HW2_Programming\W4111_HW2_Pro
gramming\CSVCatalog.py in __init__(self, column_name, column_type, not_nul
l)
    57         else:
    58             print("Issue!")
---> 59             raise ValueError('That column type is not accepted. Pl
ease try again.')
    60
    61         if type(not_null) == type(True):
```

**ValueError:** That column type is not accepted. Please try again.

In [7]:

```
cat.column_not_null_failure_test() # This will throw an error
```

issue!

```
-----
-
ValueError                                Traceback (most recent call last)
<ipython-input-7-9b5701466b82> in <module>
----> 1 cat.column_not_null_failure_test() # This will throw an error

C:\PersonalFiles\Courses\IntroToDB\HW2\W4111_HW2_Programming\W4111_HW2_Programming\unit_test_catalog.py in column_not_null_failure_test()
    99 def column_not_null_failure_test():
    100     cat = CSVCatalog.CSVCatalog(dbhost="localhost", dbport=3306, dbuser="root", dbpw="admin123", db="CSVCatalog")
--> 101     col = CSVCatalog.ColumnDefinition("name", "text", "happy")
    102     t = cat.get_table("test_table")
    103     t.add_column_definition(col)

C:\PersonalFiles\Courses\IntroToDB\HW2\W4111_HW2_Programming\W4111_HW2_Programming\CSVCatalog.py in __init__(self, column_name, column_type, not_null)
    63         else:
    64             print("issue!")
--> 65             raise ValueError('The not_null column must be either True or False! Please try again.')
    66
    67     def __str__(self):
```

**ValueError:** The not\_null column must be either True or False! Please try again.

In [8]:

```
cat.add_index_test()
```

```
Loading core definition
Q = select path from csvtables where table_name = %s
Loading columns
Q = select * from csvcolumns where table_name = %s
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
Q = insert into csvindexes (table_name, column_name, type, index_name, index_order) values(%s, %s, %s, %s, %s)
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```



In [9]:

```
cat.col_drop_test()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Q = delete from csvcolumns where column_name = %s
```

Column 'player\_age' has been dropped!

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

In [10]:

```
cat.index_drop_test()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Q = DELETE FROM csvindexes WHERE table_name = 'test_table' and index_name = 'player_index'
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

In [11]:

```
cat.describe_table_test()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

DESCRIBE People =

```
{
  "table_name": "test_table",
  "file_name": "./testing.csv",
  "columns": [
    {
      "column_name": "playerID",
      "column_type": "number",
      "not_null": true
    }
  ]
}
```

## Part 3: CSVTable Tests

In the event that the data sent is too large, jupyter notebook will throw a warning and not print any output. This will happen when you try to retrieve an entire table. Don't worry about getting the output if this happens.

Additionally, the table formatting will get messed up if the columns makes the output too wide. In your tests make sure you project fields so that your outputs are legible.

In [13]:

```
import unit_test_csv_table as tab
```

In [14]:

```
# Drop the tables if you already made them when testing  
tab.drop_tables_for_prep()
```

```
Q = DELETE FROM csvtables WHERE table_name = 'people'  
Table 'people' was dropped  
Q = DELETE FROM csvtables WHERE table_name = 'batting'  
Table 'batting' was dropped  
Q = DELETE FROM csvtables WHERE table_name = 'appearances'  
Table 'appearances' was dropped
```

In [15]:

```
tab.create_lahman_tables()
```

```
Running save core definition  
Q = insert into csvtables values(%s, %s)  
Running save core definition  
Q = insert into csvtables values(%s, %s)  
Running save core definition  
Q = insert into csvtables values(%s, %s)
```

In [16]:

```
tab.update_people_columns()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

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Q = insert into csvcolumns values(%s, %s, %s, %s)
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Q = insert into csvcolumns values(%s, %s, %s, %s)
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Q = insert into csvcolumns values(%s, %s, %s, %s)
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

In [17]:

```
tab.update_appearances_columns()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
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Q = insert into csvcolumns values(%s, %s, %s, %s)
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```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

In [18]:

```
tab.update_batting_columns()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
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Q = insert into csvcolumns values(%s, %s, %s, %s)
```

```
Q = insert into csvcolumns values(%s, %s, %s, %s)
```

In [19]:

```
tab.add_index_definitions()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, index_order) values(%s, %s, %s, %s, %s)
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, index_order) values(%s, %s, %s, %s, %s)
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, index_order) values(%s, %s, %s, %s, %s)
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, index_order) values(%s, %s, %s, %s, %s)
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, index_order) values(%s, %s, %s, %s, %s)
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, index_order) values(%s, %s, %s, %s, %s)
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, index_order) values(%s, %s, %s, %s, %s)
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

In [20]:

```
tab.test_load_info()
```

Loading core definition

Q = select path from csvtables where table\_name = %s

Loading columns

Q = select \* from csvcolumns where table\_name = %s

Q = select column\_name, type, index\_name, index\_order from csvindexes where table\_name = %s order by index\_name, index\_order

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

Loaded 1000 rows

Loaded 1100 rows

Loaded 1200 rows

Loaded 1300 rows

Loaded 1400 rows

Loaded 1500 rows

Loaded 1600 rows

Loaded 1700 rows

Loaded 1800 rows

Loaded 1900 rows

Loaded 2000 rows

Loaded 2100 rows

Loaded 2200 rows

Loaded 2300 rows

Loaded 2400 rows

Loaded 2500 rows

Loaded 2600 rows

Loaded 2700 rows

Loaded 2800 rows

Loaded 2900 rows

Loaded 3000 rows

Loaded 3100 rows

Loaded 3200 rows

Loaded 3300 rows

Loaded 3400 rows

Loaded 3500 rows

Loaded 3600 rows

Loaded 3700 rows

Loaded 3800 rows

Loaded 3900 rows

Loaded 4000 rows

Loaded 4100 rows

Loaded 4200 rows

Loaded 4300 rows

Loaded 4400 rows

Loaded 4500 rows

Loaded 4600 rows

Loaded 4700 rows

Loaded 4800 rows

Loaded 4900 rows

Loaded 5000 rows

Loaded 5100 rows

Loaded 5200 rows

Loaded 5300 rows

Loaded 5400 rows

Loaded 5500 rows



Loaded 5600 rows  
Loaded 5700 rows  
Loaded 5800 rows  
Loaded 5900 rows  
Loaded 6000 rows  
Loaded 6100 rows  
Loaded 6200 rows  
Loaded 6300 rows  
Loaded 6400 rows  
Loaded 6500 rows  
Loaded 6600 rows  
Loaded 6700 rows  
Loaded 6800 rows  
Loaded 6900 rows  
Loaded 7000 rows  
Loaded 7100 rows  
Loaded 7200 rows  
Loaded 7300 rows  
Loaded 7400 rows  
Loaded 7500 rows  
Loaded 7600 rows  
Loaded 7700 rows  
Loaded 7800 rows  
Loaded 7900 rows  
Loaded 8000 rows  
Loaded 8100 rows  
Loaded 8200 rows  
Loaded 8300 rows  
Loaded 8400 rows  
Loaded 8500 rows  
Loaded 8600 rows  
Loaded 8700 rows  
Loaded 8800 rows  
Loaded 8900 rows  
Loaded 9000 rows  
Loaded 9100 rows  
Loaded 9200 rows  
Loaded 9300 rows  
Loaded 9400 rows  
Loaded 9500 rows  
Loaded 9600 rows  
Loaded 9700 rows  
Loaded 9800 rows  
Loaded 9900 rows  
Loaded 10000 rows  
Loaded 10100 rows  
Loaded 10200 rows  
Loaded 10300 rows  
Loaded 10400 rows  
Loaded 10500 rows  
Loaded 10600 rows  
Loaded 10700 rows  
Loaded 10800 rows  
Loaded 10900 rows  
Loaded 11000 rows  
Loaded 11100 rows  
Loaded 11200 rows  
Loaded 11300 rows  
Loaded 11400 rows  
Loaded 11500 rows  
Loaded 11600 rows

Loaded	11700	rows
Loaded	11800	rows
Loaded	11900	rows
Loaded	12000	rows
Loaded	12100	rows
Loaded	12200	rows
Loaded	12300	rows
Loaded	12400	rows
Loaded	12500	rows
Loaded	12600	rows
Loaded	12700	rows
Loaded	12800	rows
Loaded	12900	rows
Loaded	13000	rows
Loaded	13100	rows
Loaded	13200	rows
Loaded	13300	rows
Loaded	13400	rows
Loaded	13500	rows
Loaded	13600	rows
Loaded	13700	rows
Loaded	13800	rows
Loaded	13900	rows
Loaded	14000	rows
Loaded	14100	rows
Loaded	14200	rows
Loaded	14300	rows
Loaded	14400	rows
Loaded	14500	rows
Loaded	14600	rows
Loaded	14700	rows
Loaded	14800	rows
Loaded	14900	rows
Loaded	15000	rows
Loaded	15100	rows
Loaded	15200	rows
Loaded	15300	rows
Loaded	15400	rows
Loaded	15500	rows
Loaded	15600	rows
Loaded	15700	rows
Loaded	15800	rows
Loaded	15900	rows
Loaded	16000	rows
Loaded	16100	rows
Loaded	16200	rows
Loaded	16300	rows
Loaded	16400	rows
Loaded	16500	rows
Loaded	16600	rows
Loaded	16700	rows
Loaded	16800	rows
Loaded	16900	rows
Loaded	17000	rows
Loaded	17100	rows
Loaded	17200	rows
Loaded	17300	rows
Loaded	17400	rows
Loaded	17500	rows
Loaded	17600	rows
Loaded	17700	rows

```
Loaded 17800 rows
Loaded 17900 rows
Loaded 18000 rows
Loaded 18100 rows
Loaded 18200 rows
Loaded 18300 rows
Loaded 18400 rows
Loaded 18500 rows
Loaded 18600 rows
Loaded 18700 rows
Loaded 18800 rows
Loaded 18900 rows
Loaded 19000 rows
Loaded 19100 rows
Loaded 19200 rows
Loaded 19300 rows
./People.csv
```

In [21]:

```
tab.test_get_col_names()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

Loaded 1000 rows

Loaded 1100 rows

Loaded 1200 rows

Loaded 1300 rows

Loaded 1400 rows

Loaded 1500 rows

Loaded 1600 rows

Loaded 1700 rows

Loaded 1800 rows

Loaded 1900 rows

Loaded 2000 rows

Loaded 2100 rows

Loaded 2200 rows

Loaded 2300 rows

Loaded 2400 rows

Loaded 2500 rows

Loaded 2600 rows

Loaded 2700 rows

Loaded 2800 rows

Loaded 2900 rows

Loaded 3000 rows

Loaded 3100 rows

Loaded 3200 rows

Loaded 3300 rows

Loaded 3400 rows

Loaded 3500 rows

Loaded 3600 rows

Loaded 3700 rows

Loaded 3800 rows

Loaded 3900 rows

Loaded 4000 rows

Loaded 4100 rows

Loaded 4200 rows

Loaded 4300 rows

Loaded 4400 rows

Loaded 4500 rows

Loaded 4600 rows

Loaded 4700 rows

Loaded 4800 rows

Loaded 4900 rows

Loaded 5000 rows

Loaded 5100 rows

Loaded 5200 rows

Loaded 5300 rows

Loaded 5400 rows

Loaded 5500 rows

Loaded	5600	rows
Loaded	5700	rows
Loaded	5800	rows
Loaded	5900	rows
Loaded	6000	rows
Loaded	6100	rows
Loaded	6200	rows
Loaded	6300	rows
Loaded	6400	rows
Loaded	6500	rows
Loaded	6600	rows
Loaded	6700	rows
Loaded	6800	rows
Loaded	6900	rows
Loaded	7000	rows
Loaded	7100	rows
Loaded	7200	rows
Loaded	7300	rows
Loaded	7400	rows
Loaded	7500	rows
Loaded	7600	rows
Loaded	7700	rows
Loaded	7800	rows
Loaded	7900	rows
Loaded	8000	rows
Loaded	8100	rows
Loaded	8200	rows
Loaded	8300	rows
Loaded	8400	rows
Loaded	8500	rows
Loaded	8600	rows
Loaded	8700	rows
Loaded	8800	rows
Loaded	8900	rows
Loaded	9000	rows
Loaded	9100	rows
Loaded	9200	rows
Loaded	9300	rows
Loaded	9400	rows
Loaded	9500	rows
Loaded	9600	rows
Loaded	9700	rows
Loaded	9800	rows
Loaded	9900	rows
Loaded	10000	rows
Loaded	10100	rows
Loaded	10200	rows
Loaded	10300	rows
Loaded	10400	rows
Loaded	10500	rows
Loaded	10600	rows
Loaded	10700	rows
Loaded	10800	rows
Loaded	10900	rows
Loaded	11000	rows
Loaded	11100	rows
Loaded	11200	rows
Loaded	11300	rows
Loaded	11400	rows
Loaded	11500	rows
Loaded	11600	rows

Loaded	11700	rows
Loaded	11800	rows
Loaded	11900	rows
Loaded	12000	rows
Loaded	12100	rows
Loaded	12200	rows
Loaded	12300	rows
Loaded	12400	rows
Loaded	12500	rows
Loaded	12600	rows
Loaded	12700	rows
Loaded	12800	rows
Loaded	12900	rows
Loaded	13000	rows
Loaded	13100	rows
Loaded	13200	rows
Loaded	13300	rows
Loaded	13400	rows
Loaded	13500	rows
Loaded	13600	rows
Loaded	13700	rows
Loaded	13800	rows
Loaded	13900	rows
Loaded	14000	rows
Loaded	14100	rows
Loaded	14200	rows
Loaded	14300	rows
Loaded	14400	rows
Loaded	14500	rows
Loaded	14600	rows
Loaded	14700	rows
Loaded	14800	rows
Loaded	14900	rows
Loaded	15000	rows
Loaded	15100	rows
Loaded	15200	rows
Loaded	15300	rows
Loaded	15400	rows
Loaded	15500	rows
Loaded	15600	rows
Loaded	15700	rows
Loaded	15800	rows
Loaded	15900	rows
Loaded	16000	rows
Loaded	16100	rows
Loaded	16200	rows
Loaded	16300	rows
Loaded	16400	rows
Loaded	16500	rows
Loaded	16600	rows
Loaded	16700	rows
Loaded	16800	rows
Loaded	16900	rows
Loaded	17000	rows
Loaded	17100	rows
Loaded	17200	rows
Loaded	17300	rows
Loaded	17400	rows
Loaded	17500	rows
Loaded	17600	rows
Loaded	17700	rows

```

Loaded 17800 rows
Loaded 17900 rows
Loaded 18000 rows
Loaded 18100 rows
Loaded 18200 rows
Loaded 18300 rows
Loaded 18400 rows
Loaded 18500 rows
Loaded 18600 rows
Loaded 18700 rows
Loaded 18800 rows
Loaded 18900 rows
Loaded 19000 rows
Loaded 19100 rows
Loaded 19200 rows
Loaded 19300 rows

```

```

['bats', 'bbrefID', 'birthCity', 'birthCountry', 'birthDay', 'birthMonth',
'birthState', 'birthYear', 'deathCity', 'deathCountry', 'deathDay', 'death
Month', 'deathState', 'deathYear', 'debut', 'finalGame', 'height', 'nameFi
rst', 'nameGiven', 'nameLast', 'playerID', 'retroID', 'throws', 'weight']

```

In [22]:

```
tab.add_other_indexes()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes whe
re table_name = %s order by index_name, index_order
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, in
dex_order) values(%s, %s, %s, %s, %s)
```

```
Q = select column_name, type, index_name, index_order from csvindexes whe
re table_name = %s order by index_name, index_order
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes whe
re table_name = %s order by index_name, index_order
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, in
dex_order) values(%s, %s, %s, %s, %s)
```

```
Q = insert into csvindexes (table_name, column_name, type, index_name, in
dex_order) values(%s, %s, %s, %s, %s)
```

```
Q = select column_name, type, index_name, index_order from csvindexes whe
re table_name = %s order by index_name, index_order
```



In [23]:

```
# This should throw an error  
# Make sure it works properly when you run it in pycharm though!  
tab.load_test()
```

Loading core definition

Q = select path from csvtables where table\_name = %s

Loading columns

Q = select \* from csvcolumns where table\_name = %s

Q = select column\_name, type, index\_name, index\_order from csvindexes where table\_name = %s order by index\_name, index\_order

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+
|  2B |  3B |  AB |  BB |  CS |  G | GIDP |  H | HBP |  HR | I
BB   | lgID | playerID |  R |  RBI |  SB | SF  | SH  |  SO |  s
tint | teamID |  yearID |
+=====+=====+=====+=====+=====+=====+=====+=====+=====+=====+
=====+=====+=====+=====+=====+=====+=====+=====+=====+=====+
=====+=====+=====+
|  0 |  0 |  4 |  0 |  0 |  1 |  |  0 |  |  0 |
| NA   | abercda01 |  0 |  0 |  0 |  |  |  0 |  |  1
| TRO   | 1871 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+
|  6 |  0 | 118 |  4 |  1 | 25 |  | 32 |  |  0 |
| NA   | addybo01 | 30 | 13 |  8 |  |  |  0 |  |  1
| RC1   | 1871 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+
|  4 |  5 | 137 |  2 |  1 | 29 |  | 40 |  |  0 |
| NA   | allisar01 | 28 | 19 |  3 |  |  |  5 |  |  1
| CL1   | 1871 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+
| 10 |  2 | 133 |  0 |  1 | 27 |  | 44 |  |  2 |
| NA   | allisdo01 | 28 | 27 |  1 |  |  |  2 |  |  1
| WS3   | 1871 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+
| 11 |  3 | 120 |  2 |  2 | 25 |  | 39 |  |  0 |
| NA   | ansonca01 | 29 | 16 |  6 |  |  |  1 |  |  1
| RC1   | 1871 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+
|  2 |  1 |  49 |  0 |  1 | 12 |  | 11 |  |  0 |
| NA   | armstbo01 |  9 |  5 |  0 |  |  |  1 |  |  1
| FW1   | 1871 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+
|  0 |  0 |  4 |  1 |  0 |  1 |  |  1 |  |  0 |

```

NA	barkeal01	0	2	0		0	1
RC1	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
10	9	157	13	6	31	63	0
NA	barnero01	66	34	11		1	1
BS1	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
1	0	5	0	0	1	1	0
NA	barrebi01	1	1	0		0	1
FW1	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
2	1	86	0	0	18	13	0
NA	barrofr01	13	11	1		0	1
BS1	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
1	10	89	3	1	22	27	3
NA	bassjo01	18	18	0		4	1
CL1	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
0	0	3	1	0	1	0	0
NA	battijo01	0	0	0		0	1
CL1	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
0	0	36	2	0	10	7	0
NA	bealsto01	6	1	2		0	1
WS3	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
0	0	15	0	0	3	6	0
NA	beaveed01	7	5	2		0	1
TRO	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
9	1	94	2	0	20	33	1
NA	bechtge01	24	21	4		2	1
PH1	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
3	3	128	9	4	29	32	0
NA	bellast01	26	23	4		2	1
TRO	1871						
+-----+-----+-----+-----+-----+-----+-----+-----+							
-----+-----+-----+-----+-----+-----+-----+-----+							
0	0	4	0	0	1	0	0
NA	berkena01	0	0	0		3	1

[illegible]

	3	1	77	8	1	19		20		0	
NA	cone		r01	17	16	12			2		1
BS1			1871								
	0	0	33	0	0	7		7		0	
NA	conn		e01	6	2	0			0		1
TRO			1871								
	8	1	118	3	3	27		38		0	
NA	crave		bi01	26	26	6			0		1
TRO			1871								
	7	5	150	10	2	28		37		3	
NA	cuthb		ne01	47	30	16			2		1
PH1			1871								
	0	1	22	2	0	6		4		0	
NA	deane		ha01	3	2	0			0		1
FW1			1871								
	1	1	34	1	0	9		7		0	
NA	donne		pe01	7	3	0			2		1
FW1			1871								
	5	0	121	3	4	26		28		0	
NA	duffy		ed01	30	15	11			2		1
CH1			1871								
	7	3	147	4	3	33		47		0	
NA	eggle		da01	37	18	14			3		1
NY2			1871								
	0	0	3	0	0	1		0		0	
NA	ewell		ge01	0	0	0			0		1
CL1			1871								
	6	1	158	3	4	33		38		0	
NA	fergu		bo01	30	25	4			2		1
NY2			1871								




5	3	76	1	1	16	17	0
NA	jackssa01	17	11	0		4	1
BS1	1871						
1	0	67	0	0	16	15	0
NA	johnsca01	10	7	1		1	1
CL1	1871						
1	1	67	6	0	18	15	0
NA	kellybi01	16	7	0		1	1
FW1	1871						
1	0	131	3	1	29	25	0
NA	kimbage01	18	9	5		2	1
CL1	1871						
1	0	101	8	0	20	21	2
NA	kingma01	23	16	5		1	1
CH1	1871						
10	6	144	1	3	29	57	0
NA	kingst01	45	34	3		1	1
TRO	1871						
1	0	12	0	0	3	2	0
NA	kohlehe01	0	1	0		0	1
FW1	1871						
3	0	48	1	0	12	11	0
NA	lennobi01	5	5	1		0	1
FW1	1871						
8	3	148	3	3	31	43	0
NA	leonaan01	33	30	14		1	1
WS3	1871						
7	1	122	8	0	25	30	0
NA	mackde01	34	17	12		7	1
RC1	1871						
7	1	134	9	3	27	46	1



NA	malonfe01	33	33	9		4	1
PH1	1871						
3	1	89	2	1	19	24	0
NA	mathebo01	15	10	2		0	1
FW1	1871						
8	2	135	5	3	26	37	0
NA	mcatebu01	34	10	5		2	1
CH1	1871						
3	0	132	7	0	25	31	0
NA	mcbridi01	36	17	4		1	1
PH1	1871						
0	0	8	1	0	2	2	0
NA	mcderjo01	3	1	1		1	1
FW1	1871						
4	0	148	6	4	29	39	0
NA	mcgeami01	42	12	20		0	1
TRO	1871						
0	5	136	8	1	29	38	0
NA	mcmuljo01	38	32	11		6	1
TRO	1871						
9	5	153	1	0	29	66	0
NA	mcveyca01	43	43	6		2	1
BS1	1871						
9	3	130	2	0	26	64	4
NA	meyerle01	45	40	4		1	1
PH1	1871						
4	3	146	1	0	32	36	0
NA	millsch01	27	22	2		0	1
NY2	1871						
6	4	157	3	3	32	43	1
NA	millsev01	38	24	2		1	1

[illegible]



10	1	144	8	0	31		39		1		
NA	spaldal01		43	31	2			1		1	
BS1	1871										
5	1	161	3	2	33		58		1		
NA	startjo01		35	34	4			0		1	
NY2	1871										
0	0	9	2	0	2		0		0		
NA	stearbi01		1	1	0			2		1	
WS3	1871										
4	6	110	7	0	25		30		2		
NA	stirega01		23	24	3			5		1	
RC1	1871										
3	7	128	1	1	29		45		3		
NA	suttoez01		35	23	3			0		1	
CL1	1871										
1	0	19	1	0	5		4		0		
NA	sweasch01		5	4	0			0		1	
WS3	1871										
7	5	124	2	5	25		42		4		
NA	treacfr01		39	33	13			5		1	
CH1	1871										
7	4	158	10	3	32		50		0		
NA	waterfr01		46	17	11			0		1	
WS3	1871										
6	5	146	4	2	29		47		1		
NA	whitede01		40	21	2			1		1	
CL1	1871										
2	0	70	1	1	15		18		0		
NA	whiteel01		13	9	0			6		1	
CL1	1871										

```

-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | | 0 | 0 | 0 |
| NA | whitewa01 | 0 | 0 | 0 | | | 0 | 1
| WS3 | 1871 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 9 | 138 | 10 | 0 | 32 | | 51 | | 0 |
| NA | woltery01 | 33 | 44 | 1 | | | 8 | 1
| NY2 | 1871 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 6 | 135 | 11 | 2 | 28 | | 51 | | 1 |
| NA | woodji01 | 45 | 29 | 18 | | | 3 | 1
| CH1 | 1871 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 7 | 5 | 80 | 6 | 1 | 16 | | 33 | | 0 |
| NA | wrighge01 | 33 | 11 | 9 | | | 1 | 1
| BS1 | 1871 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 2 | 147 | 13 | 1 | 31 | | 44 | | 0 |
| NA | wrighha01 | 42 | 26 | 7 | | | 2 | 1
| BS1 | 1871 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 7 | 145 | 9 | 2 | 29 | | 37 | | 2 |
| NA | yorkto01 | 36 | 23 | 2 | | | 1 | 1
| TRO | 1871 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 0 | 128 | 2 | 0 | 28 | | 32 | | 0 |
| NA | zettlge01 | 23 | 18 | 4 | | | 4 | 1
| CH1 | 1871 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 66 | 0 | 0 | 16 | | 18 | | 0 |
| NA | allenha01 | 8 | 7 | 0 | | | 1 | 1
| MID | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 0 | 93 | 0 | 0 | 24 | | 15 | | 0 |
| NA | allisan01 | 11 | 9 | 0 | | | 3 | 1
| BR1 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 0 | 87 | 0 | 0 | 19 | | 23 | | 0 |
| NA | allisar01 | 13 | 8 | 0 | | | 2 | 1
| CL1 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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0	0	19	0	0	5		3	0
NA	allisbi01	5	1	0			1	1
BR1	1872							
4	2	115	1	1	23		35	0
NA	allisdo01	23	20	1			3	1
TRO	1872							
2	1	79	1	0	18		27	0
NA	allisdo01	18	5	0			2	2
BR1	1872							
10	7	217	16	6	46		90	0
NA	ansonca01	60	50	6			3	1
PH1	1872							
0	0	7	0	0	2		1	0
NA	arnolbi01	2	0	0			0	1
MID	1872							
1	0	171	3	5	37		53	0
NA	barloto01	34	10	7			2	1
BR2	1872							
28	2	229	9	2	45		99	1
NA	barnero01	81	44	12			4	1
BS1	1872							
1	0	34	0	0	8		7	0
NA	barre01	7	2	1			1	1
BR2	1872							
0	0	4	0	0	1		0	0
NA	barrebi01	0	0	0			0	1
WS3	1872							
1	0	7	0	0	2		1	0
NA	bassjo01	0	1	0			0	1
BR2	1872							
1	1	36	1	0	9		11	0

NA	bealsto01	6	5	0		1	1
WS3	1872						
2	0	43	1	0	10	9	0
NA	beaveed01	6	2	0		0	1
BR2	1872						
11	2	248	6	1	51	74	0
NA	bechtge01	60	41	9		3	1
NY2	1872						
4	0	114	0	0	23	30	0
NA	bellast01	22	16	1		0	1
TRO	1872						
1	2	115	0	2	23	27	0
NA	bentlcy01	25	10	1		2	1
MID	1872						
0	0	14	0	0	4	4	0
NA	besti01	0	1	0		0	1
BR1	1872						
0	0	46	0	0	10	9	0
NA	bielaos01	13	3	0		0	1
WS4	1872						
3	0	76	1	2	16	16	0
NA	birdsda01	11	15	0		0	1
BS1	1872						
4	2	117	0	0	24	38	0
NA	boothed01	25	12	0		1	1
MID	1872						
4	0	62	0	2	15	19	0
NA	boothed01	11	8	0		0	2
BR2	1872						
6	1	165	6	2	35	44	1
NA	boydbi01	26	32	4		7	1

6	1	97	1	1	19	28	0	1
NA	clappjo01	28	10	2				1
MID	1872							



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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  7 |  0 |  0 |  2 |  |  1 |  |  0 |
| NA | claredede01 | 1 |  0 |  0 |  |  |  0 |  1
| BR2 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  3 |  1 | 97 |  0 |  1 | 25 |  | 25 |  |  0 |
| NA | clinttji01 | 12 |  6 |  0 |  |  |  2 |  1
| BR1 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  1 |  0 | 37 |  0 |  0 |  8 |  | 12 |  |  0 |
| NA | coughde01 | 5 |  7 |  0 |  |  |  0 |  1
| WS4 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  3 |  2 | 179 |  5 |  1 | 35 |  | 50 |  |  0 |
| NA | cravebi01 | 55 | 23 |  7 |  |  |  2 |  1
| BL1 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  9 |  3 | 250 |  4 |  1 | 55 |  | 52 |  |  0 |
| NA | cummica01 | 36 | 27 |  0 |  |  | 14 |  1
| NY2 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 |  0 | 260 |  6 |  4 | 47 |  | 88 |  |  1 |
| NA | cuthbne01 | 83 | 47 | 14 |  |  | 10 |  1
| PH1 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  3 |  1 | 165 |  3 |  2 | 37 |  | 36 |  |  0 |
| NA | dehlmhe01 | 30 | 14 |  4 |  |  |  1 |  1
| BR2 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  25 |  0 |  0 |  6 |  |  9 |  |  0 |
| NA | doschhe01 | 4 |  5 |  0 |  |  |  1 |  1
| BR2 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  1 |  0 |  41 |  0 |  0 |  9 |  | 12 |  |  0 |
| NA | doylejo01 | 6 |  9 |  0 |  |  |  0 |  1
| WS4 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 20 |  0 | 290 |  8 |  5 | 56 |  | 98 |  |  0 |
| NA | eggleda01 | 94 | 20 | 18 |  |  |  9 |  1
| NY2 | 1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 0 | 165 | 3 | 2 | 37 | | 46 | | 0 |
| NA | fergubo01 | 33 | 19 | 4 | | | 0 | 1
| BR2 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 1 | 87 | 0 | 0 | 18 | | 21 | | 0 |
| NA | fieldge01 | 16 | 9 | 0 | | | 2 | 1
| MID | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 3 | 225 | 2 | 1 | 46 | | 52 | | 1 |
| NA | fishech01 | 39 | 36 | 0 | | | 5 | 1
| BL1 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 13 | 3 | 243 | 4 | 0 | 47 | | 85 | | 0 |
| NA | fislewe01 | 49 | 48 | 3 | | | 4 | 1
| PH1 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 53 | 0 | 0 | 13 | | 13 | | 0 |
| NA | fleetfr01 | 10 | 5 | 1 | | | 1 | 1
| BR1 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 8 | 0 | 0 | 2 | | 3 | | 0 |
| NA | fletcge01 | 1 | 0 | 0 | | | 0 | 1
| BR1 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 15 | 2 | 0 | 3 | | 4 | | 0 |
| NA | flowedio1 | 1 | 4 | 0 | | | 2 | 1
| PH1 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 40 | 0 | 0 | 9 | | 9 | | 0 |
| NA | flynncl01 | 4 | 2 | 0 | | | 0 | 1
| WS3 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 11 | 0 | 130 | 1 | 2 | 25 | | 53 | | 0 |
| NA | forceda01 | 40 | 16 | 2 | | | 0 | 1
| TRO | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 2 | 95 | 1 | 0 | 19 | | 41 | | 0 |
| NA | forceda01 | 29 | 13 | 3 | | | 0 | 2
| BL1 | 1872 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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4	0	115	3	1	22		45		0	
NA	hastisc01	34	16	5				2		1
CL1	1872									
3	1	62	1	1	13		19		0	
NA	hastisc01	16	4	0				2		2
BL1	1872									
15	1	288	9	5	56		92		1	
NA	hatfijo01	76	45	12				6		1
NY2	1872									
0	0	23	0	0	5		3		0	
NA	heubege01	2	1	0				0		1
WS3	1872									
12	2	268	5	0	56		82		0	
NA	hicksna01	55	33	3				3		1
NY2	1872									
0	0	4	0	0	1		0		0	
NA	higby01	0	0	0	0			0		1
BR2	1872									
10	1	245	2	5	50		84		2	
NA	highadi01	72	38	3				3		1
BL1	1872									
1	0	49	0	0	11		12		0	
NA	hinespa01	9	5	0				0		1
WS4	1872									
3	0	61	1	0	13		15		0	
NA	hodesch01	17	12	0				0		1
TR0	1872									
5	0	110	1	2	22		33		0	
NA	holdsji01	19	11	3				2		1
CL1	1872									
0	0	7	0	0	2		2		0	

NA	holdsji01	1	0	0		0	2
BR1	1872						
1	1	44	1	0	9	15	0
NA	holliho01	12	6	0		0	1
WS4	1872						
1	1	48	1	1	11	15	0
NA	huntdi01	11	5	0		0	1
BR1	1872						
0	0	7	0	0	2	0	0
NA	hurledi01	0	0	0		1	1
WS3	1872						
0	0	12	0	0	4	2	0
NA	jackssa01	0	0	0		0	1
BR2	1872						
0	0	8	0	0	2	1	0
NA	jewetna01	1	0	0		0	1
BR1	1872						
1	0	23	0	0	5	6	0
NA	kavan01	3	2	0		1	1
BR1	1872						
0	0	19	0	0	5	0	0
NA	kennejo01	0	1	0		1	1
BR2	1872						
0	0	11	0	0	3	0	0
NA	kingma01	0	1	0		1	1
TRO	1872						
8	0	128	1	1	25	39	0
NA	kingst01	33	21	1		2	1
TRO	1872						
1	0	54	0	0	11	12	0
NA	lennobi01	11	6	0		0	1

[illegible]

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0	0	4	0	0	1		1	0	
NA	millejo01	0	0	0	0		0	1	
WS4	1872								
0	0	31	0	0	6		4	0	
NA	millsch01	6	2	0			0	1	
NY2	1872								
14	2	266	3	2	55		79	0	
NA	millsev01	55	34	0			2	1	
BL1	1872								
0	0	53	0	0	11		6	0	
NA	minched01	5	4	0			1	1	
WS4	1872								
0	0	4	0	0	1		0	0	
NA	mulle01	1	0	0			0	1	
CL1	1872								
1	0	117	0	0	24		42	0	
NA	murnati01	30	13	1			1	1	
MID	1872								
0	0	20	0	0	4		7	0	
NA	nelsoca01	2	4	0			2	1	
TRO	1872								
2	0	76	2	0	18		19	0	
NA	nelsoca01	12	8	1			2	2	
BR1	1872								
0	0	4	0	0	1		0	0	
NA	orour01	0	0	0			0	1	
BR1	1872								
4	1	101	2	0	23		31	0	
NA	orourji01	25	12	1			0	1	
MID	1872								





7	1	204	1	0	45		56		1
NA	rogerfr01	39	28	2			4		1
BS1	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
10	4	225	0	0	48		65		1
NA	schafha01	51	37	2			8		1
BS1	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
2	0	42	0	2	9		10		0
NA	selmafr01	3	1	0			1		1
WS3	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
0	0	5	0	1	1		2		0
NA	senseco01	2	1	0			0		1
PH1	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
5	1	90	1	0	18		23		0
NA	simmojo01	11	9	1			2		1
CL1	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
2	2	107	0	0	26		28		0
NA	snydeji01	16	11	0			1		1
BR1	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
2	0	37	1	0	9		6		0
NA	snydejo01	2	1	0			1		1
BR1	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
11	5	237	3	0	48		84		0
NA	spaldal01	60	47	3			1		1
BS1	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
0	0	4	0	0	1		0		0
NA	spenc01	1	0	0			0		1
WS4	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
4	0	282	0	3	55		76		0
NA	startjo01	62	50	3			0		1
NY2	1872								
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+									
1	0	45	0	0	11		12		0

NA	stearbi01	8	4	0		0	1
WS4	1872						
0	0	21	0	0	5	2	0
NA	studlse01	3	2	0		1	1
WS4	1872						
6	1	107	1	0	22	30	0
NA	suttoez01	30	10	1		1	1
CL1	1872						
0	0	55	2	0	14	11	0
NA	swandma01	7	4	0		1	1
BR1	1872						
0	0	57	2	0	12	16	0
NA	sweasch01	8	6	1		1	1
CL1	1872						
2	2	78	0	0	18	23	0
NA	thakeal01	14	15	2		2	1
BR2	1872						
5	1	112	0	0	24	31	0
NA	tippeji01	23	15	0		0	1
MID	1872						
7	3	236	5	5	47	65	2
NA	treacfr01	53	29	7		10	1
PH1	1872						
1	2	45	0	0	9	17	0
NA	waterfr01	13	6	0		0	1
WS3	1872						
2	2	109	4	0	22	37	0
NA	whitede01	21	22	0		1	1
CL1	1872						
0	0	45	0	0	10	13	0
NA	whitewa01	7	4	0		0	1

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| WS4      |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 69 | 4 | 0 | 16 |      | 16 |      | 0 |
| NA | woltery01 | 7 | 11 | 0 |      |      | 1 |      | 1
| CL1 |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 11 | 4 | 113 | 2 | 0 | 25 |      | 38 |      | 2 |
| NA | woodji01 | 40 | 27 | 3 |      |      | 1 |      | 1
| TRO |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 1 | 30 | 4 | 0 | 7 |      | 6 |      | 0 |
| NA | woodji01 | 10 | 0 | 1 |      |      | 1 |      | 2
| BR1 |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 5 | 0 | 0 | 1 |      | 1 |      | 0 |
| NA | worthhe01 | 1 | 1 | 0 |      |      | 0 |      | 1
| BR2 |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 16 | 6 | 255 | 3 | 4 | 48 |      | 86 |      | 2 |
| NA | wrighge01 | 87 | 32 | 14 |      |      | 1 |      | 1
| BS1 |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 1 | 208 | 9 | 0 | 48 |      | 52 |      | 0 |
| NA | wrighha01 | 39 | 23 | 0 |      |      | 2 |      | 1
| BS1 |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 |      | 0 |      | 0 |
| NA | yeatmbi01 | 0 | 0 | 0 |      |      | 1 |      | 1
| WS4 |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 4 | 248 | 4 | 1 | 51 |      | 66 |      | 1 |
| NA | yorkto01 | 66 | 41 | 2 |      |      | 1 |      | 1
| BL1 |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 9 | 0 | 113 | 0 | 1 | 25 |      | 29 |      | 0 |
| NA | zettlge01 | 25 | 21 | 0 |      |      | 2 |      | 1
| TRO |      1872 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 34 | 0 | 0 | 9 |      | 3 |      | 0 |
| NA | zettlge01 | 1 | 1 | 0 |      |      | 3 |      | 2
| BR1 |      1872 |

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 51 | 2 | 1 | 10 | | 16 | | 0 |
| NA | addybo01 | 12 | 10 | 0 | | | 0 | 1
| PH2 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 2 | 152 | 1 | 3 | 31 | | 54 | | 1 |
| NA | addybo01 | 37 | 36 | 2 | | | 0 | 2
| BS1 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 0 | 99 | 0 | 0 | 23 | | 32 | | 0 |
| NA | allisar01 | 12 | 11 | 0 | | | 0 | 1
| ELI | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 0 | 83 | 0 | 0 | 19 | | 24 | | 0 |
| NA | allisdo01 | 11 | 8 | 0 | | | 0 | 1
| ELI | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 48 | 1 | 0 | 11 | | 10 | | 0 |
| NA | allisdo01 | 6 | 3 | 0 | | | 0 | 2
| NY2 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 9 | 2 | 254 | 5 | 2 | 52 | | 101 | | 0 |
| NA | ansonca01 | 53 | 36 | 0 | | | 1 | 1
| PH1 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 8 | 0 | 0 | 2 | | 0 | | 0 |
| NA | atkined01 | 2 | 0 | 0 | | | 0 | 1
| WS5 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 3 | 101 | 0 | 0 | 23 | | 25 | | 0 |
| NA | austihe01 | 10 | 11 | 0 | | | 4 | 1
| ELI | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 2 | 271 | 4 | 3 | 55 | | 74 | | 1 |
| NA | barloto01 | 48 | 14 | 3 | | | 0 | 1
| BR2 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 29 | 8 | 322 | 18 | 4 | 60 | | 137 | | 2 |
| NA | barnero01 | 125 | 62 | 13 | | | 2 | 1
| BS1 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

0	0	4	0	1	1		1	0	
NA	barrebi01	0	0	0	0		0	1	
BL1	1873								
0	0	5	1	0	1		3	0	
NA	battijo01	4	2	0	0		0	1	
PH1	1873								
9	5	169	1	0	37		46	0	
NA	bealsto01	35	24	1			1	1	
WS5	1873								
12	1	258	9	1	53		63	1	
NA	bechtge01	53	40	2			1	1	
PH2	1873								
2	0	32	2	0	8		7	0	
NA	bellast01	4	3	0			0	1	
NY2	1873								
3	2	173	4	1	38		49	0	
NA	bielaos01	35	23	0			5	1	
WS5	1873								
0	0	12	0	0	3		1	0	
NA	birdsda01	4	1	0			0	1	
BS1	1873								
3	2	72	0	0	18		21	0	
NA	boothed01	11	4	0			2	1	
ELI	1873								
3	1	69	3	1	16		14	0	
NA	boothed01	8	8	0			0	2	
BR2	1873								
5	4	228	2	1	50		63	1	
NA	boydbi01	31	31	1			2	1	
BR2	1873								

```

-----+-----+-----+
| 1 | 0 | 69 | 0 | 0 | 16 | 18 | 0 |
| NA | brainas01 | 18 | 8 | 0 | 2 | 1
| BL1 | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 3 | 0 | 240 | 8 | 1 | 54 | 47 | 0 |
| NA | brittji01 | 29 | 14 | 1 | 14 | 1
| BR2 | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 7 | 1 | 245 | 7 | 1 | 55 | 62 | 2 |
| NA | burdoja01 | 56 | 36 | 3 | 4 | 1
| BR2 | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 1 | 87 | 2 | 0 | 20 | 13 | 0 |
| NA | campbhu01 | 9 | 6 | 1 | 1 | 1
| ELI | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 83 | 3 | 0 | 21 | 12 | 0 |
| NA | campbmi02 | 9 | 3 | 1 | 6 | 1
| ELI | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 19 | 3 | 290 | 1 | 3 | 56 | 97 | 1 |
| NA | careyto01 | 76 | 55 | 1 | 2 | 1
| BL1 | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 10 | 2 | 204 | 2 | 5 | 45 | 62 | 1 |
| NA | clappjo01 | 36 | 28 | 4 | 2 | 1
| PH1 | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 1 | 0 | 38 | 0 | 0 | 9 | 9 | 0 |
| NA | clintji01 | 5 | 4 | 0 | 0 | 1
| ELI | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | 1 | 0 |
| NA | cranefr01 | 0 | 1 | 0 | 0 | 1
| ELI | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 9 | 2 | 196 | 2 | 3 | 41 | 57 | 0 |
| NA | cravebi01 | 45 | 28 | 2 | 3 | 1
| BL1 | 1873 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+

```

5	0	192	5	0	42		48		0
NA	cummica01	30	35	1			5		1
BL1	1873								
5	3	278	2	2	51		77		2
NA	cuthbne01	78	33	13			4		1
PH2	1873								
4	1	221	9	0	54		52		0
NA	dehlmhe01	50	17	5			7		1
BR2	1873								
4	4	99	2	0	23		24		0
NA	devliji01	18	10	0			4		1
PH2	1873								
1	0	137	1	0	30		35		0
NA	donnejo01	15	20	0			0		1
WS5	1873								
0	0	6	0	0	1		1		0
NA	doschhe01	1	1	0			0		1
BR2	1873								
13	4	268	5	1	53		90		0
NA	eggleda01	82	34	4			2		1
NY2	1873								
0	0	3	0	0	1		0		0
NA	eland01	0	0	0			0		1
BL4	1873								
1	0	48	0	0	12		8		0
NA	farrojo01	2	3	0			3		1
ELI	1873								
3	5	228	4	2	51		59		0
NA	fergubo01	36	25	1			9		1
BR2	1873								
4	3	253	4	2	51		66		1



NA	fishech01	50	35	1		5	1
PH1	1873						
11	4	218	2	1	44	75	1
NA	fislewe01	44	42	2		2	1
PH1	1873						
2	0	90	1	1	22	23	0
NA	fleetfr01	11	10	0		2	1
ELI	1873						
8	1	234	9	0	49	86	0
NA	forceda01	77	31	1		0	1
BL1	1873						
0	0	18	0	0	5	4	0
NA	frenchi01	3	1	0		0	1
BL4	1873						
11	3	236	2	1	49	66	1
NA	fulmech01	42	38	3		3	1
PH2	1873						
5	5	224	7	0	53	60	1
NA	gedneco01	41	25	1		5	1
NY2	1873						
3	0	56	0	0	13	12	0
NA	gerhajo01	6	7	0		5	1
WS5	1873						
8	2	185	3	1	39	49	1
NA	glennjo01	39	21	2		0	1
WS5	1873						
0	0	4	0	0	1	0	0
NA	goldswa01	0	0	0		0	1
BL4	1873						
0	0	28	1	0	7	4	0
NA	greasjo01	4	1	1		1	1

```

| WS5 | 1873 |
+-----+
| 6 | 3 | 168 | 2 | 0 | 35 | 58 | 0 |
| NA | hallge01 | 44 | 30 | 0 | 0 | 1
| BL1 | 1873 |
+-----+
| 4 | 0 | 146 | 4 | 2 | 30 | 41 | 0 |
| NA | hastisc01 | 41 | 15 | 4 | 1 | 1
| BL1 | 1873 |
+-----+
| 5 | 6 | 255 | 3 | 0 | 52 | 78 | 2 |
| NA | hatfijo01 | 54 | 45 | 2 | 2 | 1
| NY2 | 1873 |
+-----+
| 1 | 2 | 121 | 7 | 0 | 28 | 29 | 1 |
| NA | hicksna01 | 12 | 14 | 2 | 0 | 1
| NY2 | 1873 |
+-----+
| 5 | 4 | 245 | 2 | 3 | 49 | 77 | 0 |
| NA | highadi01 | 57 | 34 | 1 | 1 | 1
| NY2 | 1873 |
+-----+
| 6 | 3 | 181 | 1 | 1 | 39 | 60 | 1 |
| NA | hinespa01 | 33 | 29 | 0 | 1 | 1
| WS5 | 1873 |
+-----+
| 4 | 8 | 233 | 0 | 0 | 53 | 75 | 0 |
| NA | holdsji01 | 46 | 28 | 1 | 3 | 1
| NY2 | 1873 |
+-----+
| 2 | 2 | 136 | 0 | 0 | 30 | 35 | 0 |
| NA | holliho01 | 25 | 22 | 0 | 6 | 1
| WS5 | 1873 |
+-----+
| 1 | 0 | 14 | 0 | 0 | 3 | 3 | 0 |
| NA | hoopemi01 | 3 | 2 | 0 | 0 | 1
| BL4 | 1873 |
+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 |
| NA | johnsto01 | 0 | 0 | 0 | 0 | 1
| BL4 | 1873 |

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  4 |  0 |  0 |  1 |  |  3 |  |  0 |
| NA | jones01 | 0 | 1 | 0 |  |  | 0 | 1
| BL4 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  8 |  0 |  0 |  2 |  |  3 |  |  0 |
| NA | kernajo01 | 1 | 1 | 0 |  |  | 0 | 1
| BL4 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  5 |  0 |  0 |  1 |  |  1 |  |  0 |
| NA | kesslhe01 | 0 | 1 | 0 |  |  | 0 | 1
| BR2 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 | 25 |  0 |  0 |  6 |  |  3 |  |  0 |
| NA | kohlehe01 | 2 | 1 | 0 |  |  | 1 | 1
| BL4 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 | 50 |  0 |  0 | 12 |  | 12 |  |  0 |
| NA | laughbe01 | 3 | 6 | 0 |  |  | 0 | 1
| ELI | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 | 19 |  0 |  0 |  5 |  |  4 |  |  0 |
| NA | lennobi01 | 2 | 2 | 0 |  |  | 0 | 1
| BL4 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 12 |  7 | 302 |  4 |  6 | 58 |  | 95 |  |  0 |
| NA | leonaan01 | 81 | 61 | 5 |  |  | 0 | 1
| BS1 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  5 |  0 |  0 |  1 |  |  2 |  |  0 |
| NA | lovetle01 | 1 | 1 | 0 |  |  | 0 | 1
| ELI | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  5 |  0 | 205 | 15 |  2 | 48 |  | 60 |  |  0 |
| NA | mackde01 | 55 | 20 | 6 |  |  | 9 | 1
| PH2 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 11 |  2 | 259 | 14 |  1 | 53 |  | 75 |  |  0 |
| NA | malonfe01 | 59 | 43 | 2 |  |  | 7 | 1
| PH2 | 1873 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	6		1		159		1		0		32
	NA		mannija01		29		22		1		
	BS1		1873								43
									11		0
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	1		0		140		0		1		31
	NA		martiph01		12		14		0		
	NY2		1873								31
									4		0
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	3		3		223		10		1		52
	NA		mathebo01		40		13		1		
	NY2		1873								43
									3		0
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	6		0		253		2		0		49
	NA		mcbridi01		41		41		0		
	PH1		1873								71
									0		0
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	0		0		4		0		0		1
	NA		mcdo01		1		0		0		
	BL4		1873								0
									0		0
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	8		1		275		1		6		52
	NA		mcgeami01		63		31		3		
	PH1		1873								83
									1		0
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	7		1		227		8		1		52
	NA		mcmuljo01		54		29		9		
	PH1		1873								62
									4		0
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	4		5		192		3		0		38
	NA		mcveyca01		49		34		1		
	BL1		1873								73
									2		2
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	14		4		238		2		0		48
	NA		meyerle01		53		58		5		
	PH2		1873								83
									0		3
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	19		9		263		2		0		54
	NA		millsev01		64		57		1		
	BL1		1873								87
									1		0
											1
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											



5	1	73	0	0	13	16	0
NA	reachal01	13	9	2		0	1
PH1	1873						
0	0	5	0	0	1	1	0
NA	reachbo01	1	0	0		0	1
WS5	1873						
4	6	207	2	2	50	61	1
NA	remseja01	29	29	1		2	1
BR2	1873						
1	0	6	0	0	1	2	0
NA	rogerfr01	1	2	0		1	1
BS1	1873						
0	0	8	0	0	2	2	0
NA	ryanjo01	1	1	0		0	1
PH2	1873						
0	0	12	0	0	3	2	0
NA	saylo01	1	2	0		0	1
BL4	1873						
12	3	295	3	4	60	79	2
NA	schafha01	65	46	3		1	1
BS1	1873						
0	0	3	0	0	1	1	0
NA	selmafr01	1	0	0		0	1
BL4	1873						
1	0	86	0	2	20	24	0
NA	senseco01	12	8	0		2	1
PH1	1873						
0	0	11	0	0	3	0	0
NA	sheppjo01	1	0	0		1	1
BL4	1873						
0	0	15	0	0	4	2	0

NA	simpsma01	4	2	0		0	1
BL4	1873						
0	0	23	0	0	6	4	0
NA	smithbi01	2	1	0		0	1
BL4	1873						
0	0	19	0	0	5	2	0
NA	smithjo01	2	1	0		1	1
BL4	1873						
2	0	108	3	1	28	21	0
NA	snydepo01	16	4	0		3	1
WS5	1873						
18	2	322	3	0	60	106	1
NA	spaldal01	83	60	1		1	1
BS1	1873						
8	3	251	4	0	53	67	1
NA	startjo01	42	28	1		0	1
NY2	1873						
0	0	133	4	0	32	24	0
NA	stearbi01	22	8	0		9	1
WS5	1873						
0	0	16	0	0	4	2	0
NA	strated01	2	0	0		0	1
BL4	1873						
7	6	242	2	3	51	81	0
NA	suttoez01	51	33	1		2	1
PH1	1873						
0	0	9	0	0	2	1	0
NA	swandma01	1	1	0		0	1
ELI	1873						
0	0	4	0	0	1	1	0
NA	sweasch01	0	0	0		0	1

```

| BS1 | 1873 |
+-----+
+-----+
+-----+
| 7 | 2 | 243 | 5 | 3 | 51 | 62 | 1 |
| NA | treacfr01 | 49 | 32 | 2 | 6 | 1 |
| PH2 | 1873 |
+-----+
+-----+
+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | 1 | 0 |
| NA | wallho01 | 1 | 0 | 0 | 0 | 0 | 1 |
| WS5 | 1873 |
+-----+
+-----+
+-----+
| 1 | 1 | 80 | 1 | 0 | 15 | 28 | 0 |
| NA | waterfr01 | 20 | 12 | 0 | 1 | 1 |
| WS5 | 1873 |
+-----+
+-----+
+-----+
| 15 | 6 | 310 | 0 | 2 | 60 | 121 | 0 |
| NA | whitede01 | 79 | 66 | 6 | 2 | 1 |
| BS1 | 1873 |
+-----+
+-----+
+-----+
| 3 | 4 | 160 | 0 | 1 | 39 | 43 | 0 |
| NA | whitewa01 | 29 | 21 | 1 | 1 | 1 |
| WS5 | 1873 |
+-----+
+-----+
+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 |
| NA | woltery01 | 1 | 0 | 0 | 0 | 0 | 1 |
| ELI | 1873 |
+-----+
+-----+
+-----+
| 0 | 0 | 5 | 0 | 0 | 1 | 0 | 0 |
| NA | woodhre01 | 1 | 0 | 0 | 0 | 0 | 1 |
| BL4 | 1873 |
+-----+
+-----+
+-----+
| 11 | 1 | 209 | 8 | 3 | 42 | 67 | 0 |
| NA | woodji01 | 67 | 27 | 8 | 1 | 1 |
| PH2 | 1873 |
+-----+
+-----+
+-----+
| 0 | 0 | 42 | 2 | 0 | 12 | 10 | 0 |
| NA | wordsfa01 | 5 | 3 | 0 | 1 | 1 |
| ELI | 1873 |
+-----+
+-----+
+-----+
| 19 | 8 | 325 | 8 | 5 | 59 | 126 | 3 |
| NA | wrighge01 | 99 | 50 | 3 | 2 | 1 |
| BS1 | 1873 |

```



10	4	266	10	1	58		67		2		
NA	wrighha01	57	35	1			3		1		
BS1	1873										
10	7	277	3	1	57		84		2		
NA	yorkto01	70	49	3			3		1		
BL1	1873										
2	0	241	1	0	51		50		0		
NA	zettlge01	39	22	3			4		1		
PH2	1873										
9	2	213	1	2	50		51		0		
NA	addybo01	25	23	4			0		1		
HR1	1874										
7	5	318	6	0	65		90		0		
NA	allisdo01	68	28	1			5		1		
NY2	1874										
8	3	259	4	0	55		87		0		
NA	ansonca01	51	37	6			1		1		
PH1	1874										
4	1	156	0	2	32		46		0		
NA	barloto01	37	10	9			2		1		
HR1	1874										
12	4	259	8	7	51		88		0		
NA	barnero01	72	41	8			2		1		
BS1	1874										
4	2	190	1	2	45		35		0		
NA	barnibi01	21	19	2			13		1		
HR1	1874										
11	1	226	1	2	51		52		0		
NA	battijo01	40	27	3			7		1		
PH1	1874										



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-----+-----+-----+
| 11 | 4 | 273 | 1 | 0 | 61 | | 75 | | 1 |
| NA | burdoja01 | 45 | 27 | 4 | | | 5 | 1
| NY2 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 10 | 3 | 286 | 2 | 0 | 64 | | 82 | | 1 |
| NA | careyto01 | 56 | 39 | 3 | | | 4 | 1
| NY2 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 3 | 0 | 0 | 1 | | 0 | | 0 |
| NA | carlle01 | 0 | 0 | 0 | | | 0 | 1
| BL1 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 10 | 2 | 242 | 4 | 1 | 53 | | 64 | | 0 |
| NA | chapmja01 | 32 | 25 | 2 | | | 11 | 1
| BR2 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 1 | 0 | 135 | 4 | 0 | 33 | | 23 | | 0 |
| NA | clackbo01 | 22 | 13 | 0 | | | 2 | 1
| BR2 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 7 | 4 | 165 | 1 | 0 | 39 | | 48 | | 3 |
| NA | clappjo01 | 46 | 20 | 2 | | | 1 | 1
| PH1 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 1 | 0 | 11 | 0 | 0 | 2 | | 2 | | 0 |
| NA | clintji01 | 3 | 2 | 0 | | | 2 | 1
| BR2 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 1 | 0 | 12 | 0 | 0 | 3 | | 1 | | 0 |
| NA | collida01 | 1 | 0 | 1 | | | 2 | 1
| CH2 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | | 0 | | 0 |
| NA | connete01 | 0 | 0 | 0 | | | 0 | 1
| CH2 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 19 | 11 | 265 | 4 | 3 | 55 | | 91 | | 0 |
| NA | cravebi01 | 68 | 56 | 11 | | | 2 | 1
| PH2 | 1874 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+

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4	2	231	0	1	54	52	0
NA	cummica01	32	19	1		12	1
PH2	1874						
6	1	295	5	0	58	79	2
NA	cuthbne01	65	22	8		5	1
CH2	1874						
8	1	203	5	1	47	50	0
NA	deaneha01	29	13	2		3	1
BL1	1874						
3	1	218	7	0	53	49	0
NA	dehlmhe01	40	18	2		5	1
BR2	1874						
5	0	203	2	1	45	58	0
NA	devliji01	26	27	2		9	1
CH2	1874						
0	0	22	0	0	6	5	0
NA	donnejo01	2	2	0		0	1
PH2	1874						
13	8	299	5	6	58	95	0
NA	eggleda01	70	31	5		1	1
PH2	1874						
0	0	13	1	0	3	5	0
NA	farreja01	3	0	0		0	1
HR1	1874						
3	0	122	1	0	27	26	0
NA	farrojo01	16	10	0		1	1
BR2	1874						
4	0	245	2	3	56	64	0
NA	fergubo01	34	18	4		7	1
BR2	1874						
7	0	241	2	2	52	54	0

NA	fishech01	28	28	0		6	1
HR1	1874						
12	1	180	0	0	37	59	0
NA	fislewe01	26	22	2		1	1
PH1	1874						
0	0	97	1	0	22	22	0
NA	fleetfr01	18	10	1		1	1
BR2	1874						
9	0	294	3	0	59	92	0
NA	forceda01	61	26	4		1	1
CH2	1874						
3	2	258	2	2	57	72	0
NA	fulmech01	49	37	0		5	1
PH2	1874						
0	0	4	0	0	1	0	0
NA	gaver01	1	0	0		0	1
BR2	1874						
4	1	222	7	2	54	61	1
NA	gedneco01	49	34	2		11	1
PH1	1874						
0	0	8	0	0	2	2	0
NA	geerbi01	0	1	0		0	1
NY2	1874						
0	1	61	0	0	14	19	0
NA	gerhajo01	10	6	0		0	1
BL1	1874						
1	0	38	1	0	8	8	0
NA	gilro01	4	7	0		3	1
CH2	1874						
9	0	237	5	2	55	67	0
NA	glennjo01	33	33	2		4	1

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| CH2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 0 | 143 | 2 | 0 | 33 | 32 | 0 |
| NA | gouldch01 | 20 | 14 | 1 | 1 | 1 |
| BL1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 8 | 222 | 1 | 0 | 47 | 64 | 1 |
| NA | hallge01 | 58 | 32 | 2 | 0 | 1 |
| BS1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 9 | 0 | 0 | 2 | 1 | 0 |
| NA | hallji01 | 0 | 0 | 0 | 0 | 0 | 1 |
| BR2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 11 | 2 | 246 | 5 | 4 | 52 | 80 | 0 |
| NA | hastisc01 | 60 | 29 | 7 | 3 | 1 |
| HR1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 12 | 1 | 292 | 7 | 0 | 63 | 66 | 0 |
| NA | hatfijo01 | 47 | 30 | 4 | 12 | 1 |
| NY2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 8 | 1 | 266 | 5 | 2 | 58 | 73 | 0 |
| NA | hicksna01 | 51 | 30 | 3 | 4 | 1 |
| PH2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 14 | 3 | 333 | 4 | 3 | 65 | 87 | 1 |
| NA | highadi01 | 58 | 37 | 5 | 0 | 1 |
| NY2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 2 | 271 | 4 | 1 | 59 | 80 | 0 |
| NA | hinespa01 | 47 | 34 | 4 | 4 | 1 |
| CH2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 0 | 81 | 0 | 0 | 21 | 12 | 0 |
| NA | hodesch01 | 8 | 7 | 0 | 2 | 1 |
| BR2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 8 | 9 | 285 | 1 | 2 | 57 | 97 | 0 |
| NA | holdsji01 | 60 | 37 | 1 | 0 | 1 |
| PH2 | 1874 |

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  7 |  0 |  0 |  2 |  |  1 |  |  0 |
| NA | jones01 | 0 | 1 | 0 |  |  | 0 | 1
| BL1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  1 |  0 | 56 |  0 |  0 | 14 |  | 17 |  |  0 |
| NA | kesslhe01 | 8 | 4 | 0 |  |  | 2 | 1
| BR2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  1 |  1 | 86 |  1 |  0 | 24 |  | 12 |  |  0 |
| NA | knowdja01 | 8 | 3 | 1 |  |  | 3 | 1
| BR2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  4 |  0 |  0 |  2 |  |  0 |  |  0 |
| NA | kohlehe01 | 0 | 0 | 0 |  |  | 0 | 1
| BL1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  4 |  0 |  0 |  1 |  |  1 |  |  0 |
| NA | ledwimi01 | 1 | 1 | 0 |  |  | 0 | 1
| BR2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 18 |  4 | 339 |  2 |  3 | 71 |  | 108 |  |  0 |
| NA | leonaan01 | 68 | 51 | 11 |  |  | 2 | 1
| BS1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  8 |  4 | 246 |  2 |  0 | 56 |  | 51 |  |  0 |
| NA | mackde01 | 48 | 22 | 4 |  |  | 3 | 1
| PH2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  5 |  0 | 223 |  4 |  1 | 47 |  | 56 |  |  0 |
| NA | malonfe01 | 33 | 29 | 2 |  |  | 0 | 1
| CH2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  8 |  2 | 174 |  2 |  0 | 42 |  | 61 |  |  0 |
| NA | mannija01 | 32 | 18 | 0 |  |  | 2 | 1
| BL1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  5 |  0 |  0 |  1 |  |  1 |  |  0 |
| NA | mannija01 | 1 | 0 | 0 |  |  | 0 | 2
| HR1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

0	0	29	0	0	7		4	0									
NA	martial01	1	1	0			1	1									
BR2	1874																
6	1	298	3	0	65		72	0									
NA	mathebo01	46	30	2			3	1									
NY2	1874																
7	1	263	1	0	55		57	0									
NA	mcbridi01	30	34	1			5	1									
PH1	1874																
10	2	271	1	2	54		87	0									
NA	mcgeami01	61	22	10			2	1									
PH1	1874																
1	0	65	0	0	16		11	0									
NA	mcgeepa01	4	6	0			3	1									
BR2	1874																
0	0	4	0	0	1		0	0									
NA	mckenfr01	0	0	0			1	1									
PH2	1874																
10	2	260	8	3	55		90	2									
NA	mcmuljo01	61	32	4			12	1									
PH1	1874																
21	6	343	1	0	70		123	3									
NA	mcveyca01	91	71	5			3	1									
BS1	1874																
19	1	254	3	1	53		100	1									
NA	meyerle01	65	47	3			4	1									
CH2	1874																
0	0	16	0	0	4		8	0									
NA	milleto01	1	5	0			0	1									
PH1	1874																



+-----+											
6	1	243	4	1	53		69		0		
NA	millsev01	39		17	0			2		1	
HR1	1874										
+-----+											
+-----+											
+-----+											
2	0	82	1	1	21		17		0		
NA	murnati01	11		11	0			3		1	
PH1	1874										
+-----+											
+-----+											
+-----+											
7	5	297	9	0	65		73		0		
NA	nelsoca01	55		32	6			5		1	
NY2	1874										
+-----+											
+-----+											
+-----+											
0	0	3	0	0	1		0		0		
NA	oneal01	0		0	0			1		1	
HR1	1874										
+-----+											
+-----+											
+-----+											
15	8	331	4	1	70		104		5		
NA	orourji01	82		61	11			5		1	
BS1	1874										
+-----+											
+-----+											
+-----+											
0	1	77	0	1	17		17		0		
NA	paborch01	11		1	0			0		1	
PH2	1874										
+-----+											
+-----+											
+-----+											
0	0	5	0	0	1		2		0		
NA	patteda01	1		2	0			0		1	
NY2	1874										
+-----+											
+-----+											
+-----+											
1	0	255	6	0	56		75		0		
NA	pearcdi01	48		25	1			1		1	
BR2	1874										
+-----+											
+-----+											
+-----+											
10	0	239	2	2	55		69		1		
NA	peterjo01	39		25	2			11		1	
CH2	1874										
+-----+											
+-----+											
+-----+											
0	0	24	0	0	6		3		0		
NA	phelpne01	5		2	0			0		1	
NY2	1874										
+-----+											
+-----+											
+-----+											

22	5	234	5	1	52		83		1
NA	pikeli01		58	51	3			0	1
HR1		1874							
0	0	4	0	0	1		1		0
NA	quinl01		0	1	0			0	1
PH2		1874							
7	0	103	2	1	23		25		1
NA	radcljo01		20	14	1			0	1
PH2		1874							
2	0	55	0	0	14		7		0
NA	reachal01		8	2	0			4	1
PH1		1874							
0	0	4	0	0	1		0		0
NA	reedhu01		0	0	0			0	1
BL1		1874							
9	3	284	0	0	64		65		2
NA	remseja01		52	37	6			5	1
NY2		1874							
0	0	4	0	0	1		0		0
NA	revilhe01		0	0	0			0	1
BL1		1874							
8	1	182	5	0	47		35		0
NA	ryanjo01		29	19	3			13	1
BL1		1874							
3	0	66	0	0	18		14		0
NA	saylo01		4	5	0			1	1
BL1		1874							
10	2	327	1	4	71		87		1
NA	schafha01		69	45	2			5	1
BS1		1874							
3	2	54	0	0	12		16		0

NA	selmafr01	9	5	2		2	1
BL1	1874						
0	0	16	0	0	5	3	0
NA	senseco01	3	2	0		0	1
PH1	1874						
0	0	35	0	0	9	8	1
NA	shaffor01	6	3	0		3	1
HR1	1874						
0	0	5	0	0	1	1	0
NA	shaffor01	1	0	0		0	2
NY2	1874						
0	0	7	0	0	2	0	0
NA	smilebi01	0	0	0		0	1
BL1	1874						
1	0	21	0	0	6	4	0
NA	smithjo01	1	1	0		1	1
BL1	1874						
0	0	1	0	0	1	1	0
NA	snowch01	0	0	0		0	1
BR2	1874						
4	0	151	1	0	39	33	1
NA	snydepo01	24	17	0		2	1
BL1	1874						
13	1	362	3	1	71	119	0
NA	spaldal01	80	54	2		0	1
BS1	1874						
13	3	306	4	0	63	96	2
NA	startjo01	67	45	5		0	1
NY2	1874						
1	0	132	7	0	33	21	0
NA	stearbi01	16	9	0		7	1

HR1	1874						
10	3	243	0	4	55	71	0
NA	suttoez01	54	28	6	2	1	
PH1	1874						
0	0	33	2	0	8	8	0
NA	sweasch01	2	4	0	0	1	
BL1	1874						
1	0	44	0	0	10	5	0
NA	sweasch01	4	3	0	0	2	
BR2	1874						
0	0	48	0	0	13	12	0
NA	tayloza01	3	3	0	1	1	
BL1	1874						
8	0	197	1	1	45	60	0
NA	tippeji01	36	20	0	7	1	
HR1	1874						
5	0	148	2	4	35	28	0
NA	treacfr01	18	12	4	6	1	
CH2	1874						
1	0	35	1	0	9	8	0
NA	westbi01	4	2	0	2	1	
BR2	1874						
5	7	353	4	1	70	106	3
NA	whitede01	75	52	1	0	1	
BS1	1874						
1	0	212	1	0	45	57	0
NA	whitewa01	21	18	1	2	1	
BL1	1874						
0	0	5	0	0	1	0	0
NA	wood01	0	0	0	1	1	
BL1	1874						

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 15 | 313 | 5 | 0 | 60 | | 103 | | 2 |
| NA | wrighge01 | 76 | 44 | 2 | | | 6 | 1
| BS1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 2 | 184 | 4 | 0 | 40 | | 58 | | 2 |
| NA | wrighha01 | 44 | 27 | 1 | | | 2 | 1
| BS1 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 7 | 224 | 5 | 0 | 50 | | 56 | | 0 |
| NA | yorkto01 | 36 | 37 | 1 | | | 4 | 1
| PH2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 7 | 0 | 244 | 1 | 0 | 57 | | 47 | | 0 |
| NA | zettlge01 | 26 | 18 | 0 | | | 5 | 1
| CH2 | 1874 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 45 | 0 | 0 | 11 | | 10 | | 0 |
| NA | abadijo01 | 3 | 4 | 1 | | | 3 | 1
| PH3 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | | 1 | | 0 |
| NA | abadijo01 | 1 | 1 | 0 | | | 0 | 2
| BR2 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 8 | 4 | 310 | 0 | 8 | 69 | | 80 | | 0 |
| NA | addybo01 | 60 | 43 | 16 | | | 2 | 1
| PH2 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 1 | 112 | 1 | 0 | 26 | | 24 | | 0 |
| NA | allisar01 | 18 | 3 | 6 | | | 2 | 1
| WS6 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 1 | 175 | 0 | 2 | 40 | | 42 | | 1 |
| NA | allisar01 | 26 | 19 | 1 | | | 3 | 2
| HR1 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 7 | 0 | 269 | 6 | 0 | 61 | | 67 | | 0 |
| NA | allisdo01 | 38 | 21 | 2 | | | 3 | 1
| HR1 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

15	3	326	4	6	69		106		0
NA	ansonca01	84	58	11				2	1
PH1	1875								
0	0	4	0	0	1		0		0
NA	arundha01	0	0	0	0			0	1
BR2	1875								
0	0	72	0	0	19		11		0
NA	banckst01	3	2	1				3	1
NH1	1875								
0	0	5	0	0	1		1		0
NA	barloto01	1	0	0	0			0	1
NH1	1875								
0	0	4	0	0	1		0		0
NA	barloto01	0	0	0	0			0	2
BR2	1875								
20	4	393	7	6	78		143		1
NA	barnero01	115	58	29				3	1
BS1	1875								
1	0	36	0	0	10		4		0
NA	barnibi01	3	2	0				3	1
KE0	1875								
0	0	34	1	0	9		5		0
NA	barnibi01	1	1	1	0			0	2
NY2	1875								
6	3	284	0	3	67		71		0
NA	battijo01	31	33	15				6	1
SL2	1875								
2	6	155	3	0	35		41		0
NA	bealsto01	38	16	1				1	1
BS1	1875								

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-----+-----+-----+
| 5 | 0 | 61 | 1 | 0 | 14 | | 17 | | 0 |
| NA | bechtge01 | 12 | 7 | 0 | | | 1 | 1
| PH3 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 6 | 2 | 164 | 1 | 0 | 35 | | 46 | | 0 |
| NA | bechtge01 | 33 | 20 | 2 | | | 3 | 2
| PH1 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 1 | 0 | 201 | 2 | 5 | 51 | | 48 | | 0 |
| NA | bielaos01 | 21 | 11 | 5 | | | 5 | 1
| CH2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 2 | 0 | 68 | 0 | 0 | 16 | | 10 | | 0 |
| NA | blongjo01 | 3 | 5 | 1 | | | 7 | 1
| SL1 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | | 0 | | 0 |
| NA | bolan01 | 0 | 0 | 0 | | | 0 | 1
| BR2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 11 | 3 | 289 | 0 | 1 | 72 | | 77 | | 0 |
| NA | bondto01 | 32 | 33 | 5 | | | 5 | 1
| HR1 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 2 | 0 | 0 | 1 | | 0 | | 0 |
| NA | booth01 | 0 | 0 | 0 | | | 1 | 1
| NH1 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 3 | 4 | 281 | 0 | 3 | 68 | | 56 | | 0 |
| NA | boothed01 | 33 | 18 | 4 | | | 2 | 1
| NY2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 28 | 0 | 0 | 7 | | 3 | | 0 |
| NA | bordejo01 | 3 | 1 | 0 | | | 1 | 1
| PH2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 11 | 0 | 151 | 1 | 0 | 36 | | 44 | | 1 |
| NA | boydbi01 | 14 | 10 | 0 | | | 0 | 1
| BR2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+

```

7	3	254	1	3	60		62		0
NA	bradlge01	28	24	3			19		1
SL2	1875								
0	1	4	0	0	1		1		0
NA	brady01	1	0	0			0		1
CH2	1875								
0	0	91	0	0	21		13		0
NA	bradyst01	7	3	5			4		1
WS6	1875								
0	0	4	0	0	1		0		0
NA	bradyst01	0	0	0			1		2
HR1	1875								
0	0	9	0	0	2		1		0
NA	brannmi01	2	0	2			0		1
CH2	1875								
0	0	10	0	0	3		0		0
NA	brownol01	0	0	0			0		1
BR2	1875								
12	5	350	3	11	74		103		0
NA	burdoja01	72	35	20			13		1
HR1	1875								
0	1	5	0	0	1		3		0
NA	bushodo01	0	0	0			0		1
BR2	1875								
0	0	36	0	0	10		3		0
NA	carbijo01	0	2	0			1		1
KEO	1875								
6	2	382	1	3	86		101		0
NA	careyto01	63	38	13			3		1
HR1	1875								
3	2	166	0	0	41		29		1



NA	cassijo01	14	6	0		4	1
BR2	1875						
1	0	22	0	1	6	3	0
NA	cassijo01	3	1	0		1	2
NH1	1875						
5	3	195	1	1	43	44	0
NA	chajmja01	28	30	4		7	1
SL2	1875						
0	0	59	0	0	17	6	0
NA	clackbo01	1	1	0		3	1
BR2	1875						
8	7	292	7	5	60	77	0
NA	clappjo01	65	39	9		1	1
PH1	1875						
0	0	81	0	0	22	10	0
NA	clintji01	3	0	0		0	1
BR2	1875						
0	0	12	0	0	4	2	0
NA	coonwi01	1	1	1		0	1
PH1	1875						
1	0	81	0	0	21	17	0
NA	cranejr01	7	4	0		4	1
BR2	1875						
4	2	65	2	0	14	18	0
NA	cravebi01	8	5	1		4	1
PH3	1875						
11	11	260	4	4	54	83	2
NA	cravebi01	71	40	8		5	2
PH1	1875						
3	0	75	0	1	19	15	0
NA	croftar01	5	2	5		2	1

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| SL1 | 1875 |
+-----+
| 0 | 0 | 37 | 1 | 0 | 9 | 3 | 0 | 0 |
| NA | crowlbi01 | 4 | 3 | 0 | 0 | 1 |
| PH2 | 1875 |
+-----+
| 7 | 2 | 221 | 3 | 0 | 53 | 44 | 0 |
| NA | cummica01 | 30 | 15 | 1 | 11 | 1 |
| HR1 | 1875 |
+-----+
| 9 | 2 | 319 | 3 | 1 | 68 | 78 | 0 |
| NA | cuthbne01 | 68 | 17 | 18 | 8 | 1 |
| SL2 | 1875 |
+-----+
| 5 | 4 | 110 | 0 | 2 | 27 | 20 | 0 |
| NA | dailejo01 | 16 | 13 | 3 | 1 | 1 |
| WS6 | 1875 |
+-----+
| 0 | 0 | 8 | 0 | 0 | 2 | 1 | 0 |
| NA | dailejo01 | 3 | 0 | 0 | 1 | 2 |
| BR2 | 1875 |
+-----+
| 12 | 2 | 254 | 11 | 9 | 67 | 57 | 0 |
| NA | dehlme01 | 42 | 14 | 23 | 21 | 1 |
| SL2 | 1875 |
+-----+
| 17 | 6 | 318 | 4 | 1 | 69 | 92 | 0 |
| NA | devliji01 | 60 | 40 | 6 | 4 | 1 |
| CH2 | 1875 |
+-----+
| 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| NA | dillojo01 | 0 | 0 | 0 | 0 | 1 |
| SL1 | 1875 |
+-----+
| 1 | 0 | 13 | 0 | 0 | 3 | 3 | 0 |
| NA | dillopa01 | 1 | 1 | 0 | 0 | 1 |
| SL1 | 1875 |
+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | 2 | 0 |
| NA | dolele01 | 1 | 0 | 0 | 0 | 1 |
| NH1 | 1875 |

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2	0	260	2	4	62	57	0
NA	haguebi01	24	22	3		9	1
SL2	1875						
10	12	358	3	5	77	107	4
NA	hallge01	71	62	8		4	1
PH1	1875						
2	1	51	0	2	13	14	0
NA	halliji01	12	3	2		1	1
KE0	1875						
6	3	203	1	2	44	58	3
NA	halliji01	29	21	2		2	2
NY2	1875						
0	1	3	0	0	1	1	0
NA	hallji01	0	1	0		0	1
KE0	1875						
3	3	208	9	4	53	50	0
NA	harbibi01	32	26	2		3	1
HR1	1875						
1	0	4	0	1	1	2	0
NA	harriri01	0	1	0		0	1
NH1	1875						
9	0	287	9	11	65	73	0
NA	hastisc01	43	30	13		14	1
CH2	1875						
1	0	4	0	0	1	2	0
NA	hatfijo01	1	1	0		0	1
NY2	1875						
3	0	83	0	1	19	25	0
NA	hautzch01	5	4	5		9	1
SL1	1875						
0	3	50	0	0	11	14	0

NA	heife01	11	5	0		0	1
BS1	1875						
0	0	4	0	0	1	1	0
NA	helli01	0	0	0		0	1
BR2	1875						
10	0	269	2	0	62	67	0
NA	hicksna01	32	22	1		10	1
NY2	1875						
5	3	208	0	2	42	49	0
NA	highadi01	44	12	6		0	1
CH2	1875						
5	0	64	0	0	15	25	0
NA	highadi01	12	10	0		1	2
NY2	1875						
14	4	308	1	9	69	101	0
NA	hinespa01	45	36	6		0	1
CH2	1875						
12	1	324	1	3	71	92	0
NA	holdsji01	45	23	3		3	1
NY2	1875						
1	1	81	1	1	19	20	0
NA	holliho01	8	5	2		2	1
WS6	1875						
2	4	47	0	1	12	13	0
NA	jonesch01	4	10	1		5	1
KEO	1875						
0	0	4	0	0	1	0	0
NA	jonesch01	1	0	0		1	2
HR1	1875						
0	0	13	0	0	5	1	0
NA	keenaji01	1	0	0		0	1

```

| NH1 | 1875 |
+-----+
+-----+
+-----+
| 0 | 0 | 23 | 0 | 0 | 6 | 3 | 0 |
| NA | kee | lge01 | 2 | 3 | 0 | 2 | 1 |
| CH2 | 1875 |
+-----+
+-----+
+-----+
| 2 | 0 | 105 | 1 | 2 | 25 | 26 | 0 |
| NA | kess | lhe01 | 17 | 7 | 0 | 2 | 1 |
| BR2 | 1875 |
+-----+
+-----+
+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 |
| NA | knigh | ge01 | 0 | 0 | 0 | 0 | 1 |
| NH1 | 1875 |
+-----+
+-----+
+-----+
| 2 | 0 | 47 | 0 | 0 | 13 | 6 | 0 |
| NA | knigh | lo01 | 5 | 2 | 2 | 2 | 1 |
| PH1 | 1875 |
+-----+
+-----+
+-----+
| 2 | 0 | 163 | 1 | 1 | 43 | 32 | 0 |
| NA | knowd | ja01 | 17 | 9 | 0 | 3 | 1 |
| BR2 | 1875 |
+-----+
+-----+
+-----+
| 4 | 0 | 78 | 0 | 0 | 16 | 21 | 0 |
| NA | lathaj | u01 | 23 | 13 | 0 | 2 | 1 |
| BS1 | 1875 |
+-----+
+-----+
+-----+
| 1 | 0 | 76 | 0 | 0 | 20 | 15 | 0 |
| NA | lathaj | u01 | 6 | 5 | 6 | 4 | 2 |
| NH1 | 1875 |
+-----+
+-----+
+-----+
| 14 | 6 | 396 | 2 | 8 | 80 | 127 | 1 |
| NA | leonaan | 01 | 87 | 74 | 14 | 6 | 1 |
| BS1 | 1875 |
+-----+
+-----+
+-----+
| 1 | 0 | 21 | 1 | 0 | 6 | 5 | 0 |
| NA | lovetle | 01 | 2 | 2 | 0 | 5 | 1 |
| PH3 | 1875 |
+-----+
+-----+
+-----+
| 0 | 0 | 22 | 1 | 1 | 6 | 3 | 0 |
| NA | lowryjo | 01 | 2 | 0 | 0 | 0 | 1 |
| WS6 | 1875 |

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 3 | 166 | 0 | 3 | 38 | | 45 | | 2 |
| NA | luffhe01 | 15 | 18 | 3 | | | 5 | 1
| NH1 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 1 | 123 | 1 | 0 | 29 | | 28 | | 0 |
| NA | malonfe01 | 15 | 10 | 1 | | | 2 | 1
| PH2 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 11 | 3 | 348 | 2 | 5 | 77 | | 94 | | 1 |
| NA | mannija01 | 71 | 46 | 5 | | | 9 | 1
| BS1 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 26 | 0 | 0 | 6 | | 3 | | 0 |
| NA | martial01 | 1 | 1 | 0 | | | 0 | 1
| BR2 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 47 | 0 | 0 | 12 | | 11 | | 0 |
| NA | masonch01 | 5 | 3 | 0 | | | 1 | 1
| PH3 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 33 | 0 | 0 | 8 | | 3 | | 0 |
| NA | masonch01 | 2 | 1 | 0 | | | 3 | 2
| WS6 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 2 | 264 | 2 | 2 | 70 | | 48 | | 0 |
| NA | mathebo01 | 23 | 15 | 1 | | | 5 | 1
| NY2 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 9 | 0 | 270 | 4 | 1 | 60 | | 73 | | 0 |
| NA | mcbridi01 | 42 | 45 | 2 | | | 5 | 1
| PH1 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 40 | 1 | 1 | 11 | | 7 | | 0 |
| NA | mcclobi01 | 1 | 4 | 0 | | | 2 | 1
| WS6 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 2 | 310 | 1 | 4 | 68 | | 90 | | 0 |
| NA | mcgeami01 | 71 | 37 | 19 | | | 1 | 1
| PH2 | 1875 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 0 | 95 | 0 | 0 | 25 | | 17 | | 0 |
| NA | mcgeepa01 | 4 | 9 | 0 | | | 10 | 1
| NY2 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 1 | 65 | 1 | 0 | 18 | | 10 | | 0 |
| NA | mcgeepa01 | 3 | 5 | 0 | | | 4 | 2
| BR2 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 1 | 52 | 0 | 0 | 13 | | 12 | | 0 |
| NA | mcginti01 | 5 | 5 | 0 | | | 4 | 1
| PH3 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 1 | 131 | 0 | 1 | 32 | | 36 | | 0 |
| NA | mcginti01 | 13 | 10 | 1 | | | 7 | 2
| NH1 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 1 | 188 | 5 | 1 | 43 | | 43 | | 0 |
| NA | mckeljo01 | 26 | 10 | 3 | | | 8 | 1
| NH1 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 9 | 4 | 222 | 5 | 10 | 54 | | 57 | | 2 |
| NA | mcmuljo01 | 33 | 19 | 6 | | | 12 | 1
| PH2 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 52 | 0 | 0 | 15 | | 11 | | 0 |
| NA | mcsortr01 | 4 | 2 | 3 | | | 3 | 1
| SL1 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 36 | 9 | 389 | 1 | 0 | 82 | | 138 | | 3 |
| NA | mcveyca01 | 89 | 87 | 7 | | | 5 | 1
| BS1 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 32 | 0 | 0 | 8 | | 7 | | 0 |
| NA | metcaal01 | 2 | 1 | 2 | | | 3 | 1
| NY2 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 14 | 8 | 301 | 0 | 2 | 68 | | 95 | | 1 |
| NA | meyerle01 | 55 | 54 | 7 | | | 2 | 1
| PH2 | 1875 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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-----+-----+-----+
| 1 | 0 | 50 | 0 | 0 | 13 | 6 | 0 |
| NA | millejo01 | 4 | 0 | 0 | 3 | 1
| KEO | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 54 | 0 | 0 | 15 | 8 | 0 |
| NA | millejo01 | 1 | 1 | 0 | 7 | 2
| CH2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 2 | 0 | 214 | 1 | 0 | 56 | 35 | 0 |
| NA | millete01 | 18 | 12 | 2 | 8 | 1
| SL2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 8 | 4 | 342 | 0 | 4 | 80 | 89 | 1 |
| NA | millsev01 | 59 | 48 | 6 | 3 | 1
| HR1 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 4 | 0 | 86 | 0 | 1 | 21 | 19 | 0 |
| NA | mooremo01 | 5 | 5 | 0 | 4 | 1
| BR2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 4 | 0 | 69 | 5 | 1 | 19 | 18 | 0 |
| NA | morgapi01 | 11 | 1 | 2 | 4 | 1
| SL1 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | 0 | 0 |
| NA | munnho01 | 0 | 0 | 0 | 0 | 1
| BR2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 5 | 0 | 313 | 7 | 9 | 69 | 85 | 1 |
| NA | murnati01 | 71 | 30 | 30 | 7 | 1
| PH2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 7 | 1 | 276 | 9 | 2 | 70 | 55 | 0 |
| NA | nelsoca01 | 28 | 23 | 4 | 0 | 1
| NY2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 2 | 0 | 131 | 0 | 0 | 32 | 20 | 0 |
| NA | nichoal01 | 4 | 9 | 0 | 6 | 1
| BR2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+

```

0	2	119	0	0	34	23	0
NA	nichotr01	12	5	5		2	1
NH1	1875						
0	0	26	1	1	7	2	0
NA	oneilj01	3	1	0		1	1
BR2	1875						
3	1	81	1	2	19	15	0
NA	oranto01	7	10	3		1	1
SL1	1875						
13	7	358	9	5	75	106	6
NA	orourji01	97	72	17		6	1
BS1	1875						
2	2	153	1	0	42	36	0
NA	paborch01	14	11	0		1	1
BR2	1875						
0	2	23	0	0	6	8	0
NA	paborch01	4	2	0		1	2
NH1	1875						
0	0	111	1	1	27	20	0
NA	parksbi01	13	6	1		1	1
WS6	1875						
0	0	6	0	0	2	1	0
NA	parksbi01	0	0	0		1	2
PH2	1875						
0	0	45	0	0	12	9	0
NA	patteda01	4	4	1		0	1
BR2	1875						
6	3	311	7	3	70	77	0
NA	pearcdi01	51	29	8		7	1
SL2	1875						
16	2	297	0	6	69	85	0

NA	peterjo01	40	34	12		3	1
CH2	1875						
1	0	6	0	0	2	2	0
NA	phelpne01	1	0	0		1	1
NY2	1875						
22	12	312	3	10	70	108	0
NA	pikeli01	61	44	25		8	1
SL2	1875						
0	0	8	0	0	2	1	0
NA	quinnpa01	2	0	0		0	1
BR2	1875						
1	0	43	0	1	11	14	0
NA	quinnpa02	4	5	0		1	1
KE0	1875						
0	0	13	1	1	5	3	0
NA	quinnpa02	1	1	0		3	2
HR1	1875						
0	0	61	0	1	17	14	0
NA	quinnpa02	12	1	1		2	3
CH2	1875						
0	0	23	1	0	5	4	0
NA	radcljo01	2	0	0		0	1
PH3	1875						
1	0	14	0	1	3	4	0
NA	reachal01	4	1	2		0	1
PH1	1875						
2	0	82	2	0	19	16	0
NA	redmobi01	12	1	3		7	1
SL1	1875						
10	4	358	5	3	86	96	0
NA	remseja01	70	34	6		4	1

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10	5	314	3	4	69		90		4		
NA	startjo01	58	30	1				0		1	
NY2	1875										
0	0	78	1	1	21		20		0		
NA	stearbi01	9	7	0				4		1	
WS6	1875										
0	0	4	0	0	1		1		0		
NA	stevero01	0	0	0				0		1	
WS6	1875										
1	0	9	0	0	2		1		0		
NA	stodd01	1	0	0				1		1	
BR2	1875										
0	0	8	0	0	2		3		0		
NA	sulli01	3	2	1				1		1	
NH1	1875										
11	7	358	1	10	75		116		1		
NA	suttoez01	83	59	13				3		1	
PH1	1875										
1	0	76	3	4	19		13		0		
NA	sweasch01	7	4	2				1		1	
SL1	1875										
0	1	22	0	0	6		4		0		
NA	terry01	0	2	0				1		1	
WS6	1875										
0	1	41	0	0	11		4		0		
NA	thompan01	3	3	0				1		1	
WS6	1875										
0	0	5	0	0	1		2		0		
NA	thompfr01	1	1	0				0		1	
BR2	1875										



```

-----+-----+-----+
| 1 | 0 | 159 | 1 | 0 | 41 | | 25 | | 0 |
| NA | tippeji01 | 10 | 4 | 1 | | 6 | 1
| NH1 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 3 | 0 | 46 | 2 | 0 | 11 | | 12 | | 0 |
| NA | treacfr01 | 9 | 2 | 1 | | 0 | 1
| PH3 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 3 | 3 | 179 | 1 | 3 | 43 | | 38 | | 0 |
| NA | treacfr01 | 23 | 15 | 6 | | 3 | 2
| PH2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 2 | 0 | 45 | 1 | 0 | 10 | | 8 | | 0 |
| NA | trenwge01 | 5 | 4 | 0 | | 2 | 1
| PH3 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 2 | 0 | 25 | 0 | 0 | 6 | | 6 | | 0 |
| NA | trenwge01 | 1 | 3 | 0 | | 1 | 2
| NH1 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 10 | 0 | 113 | 2 | 2 | 30 | | 23 | | 0 |
| NA | waittch01 | 14 | 12 | 3 | | 7 | 1
| SL2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 2 | 1 | 0 | 1 | | 0 | | 0 |
| NA | walkeos01 | 0 | 0 | 0 | | 0 | 1
| BR2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 4 | 0 | 57 | 1 | 0 | 14 | | 14 | | 0 |
| NA | warnefr01 | 11 | 2 | 0 | | 2 | 1
| PH3 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 20 | 0 | 1 | 5 | | 6 | | 0 |
| NA | waterfr01 | 2 | 3 | 0 | | 2 | 1
| CH2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 1 | 0 | 4 | 0 | 0 | 1 | | 1 | | 0 |
| NA | weavesa01 | 1 | 1 | 0 | | 0 | 1
| PH2 | 1875 |
+-----+-----+-----+
-----+-----+-----+
-----+-----+

```

23	3	371	3	3	80		136		1
NA	whitede01	76	60	2			2		1
BS1	1875								
9	0	287	0	10	69		71		0
NA	whitewa01	37	23	5			3		1
CH2	1875								
0	0	1	0	0	1		0		0
NA	withech01	0	0	0	0		0		1
WS6	1875								
20	7	408	2	6	79		136		2
NA	wrighge01	106	61	13			6		1
BS1	1875								
0	0	4	0	0	1		1		0
NA	wrighha01	1	0	0	0		1		1
BS1	1875								
4	0	127	1	0	33		24		0
NA	wrighsa01	10	5	1			1		1
NH1	1875								
14	7	375	3	3	86		111		0
NA	yorkto01	68	37	7			6		1
HR1	1875								
0	0	133	0	0	32		29		0
NA	zettlge01	7	9	0			5		1
CH2	1875								
0	0	83	0	0	21		15		0
NA	zettlge01	10	6	1			7		2
PH2	1875								
4	1	142	5	0	32		40		0
NL	addybo01	36	16	0			0		1
CHN	1876								
2	1	130	2	0	31		27		0

NL	allisar01	9	10	0		6	1
LS1	1876						
4	0	163	3	0	44	43	0
NL	allisdo01	19	15	0		9	1
HAR	1876						
3	0	36	0	0	8	11	0
NL	andrufr01	6	2	0		5	1
CHN	1876						
9	7	309	12	0	66	110	2
NL	ansonca01	63	59	0		8	1
CHN	1876						
21	14	322	20	0	66	138	1
NL	barnero01	126	59	0		8	1
CHN	1876						
11	4	283	6	0	64	85	0
NL	battijo01	34	46	0		6	1
SL3	1876						
1	0	55	0	0	14	10	0
NL	bechtge01	2	2	0		1	1
LS1	1876						
0	0	10	0	0	2	3	0
NL	bechtge01	2	0	0		0	2
NY3	1876						
0	0	4	0	0	1	0	0
NL	berghjo01	0	0	0		2	1
PHN	1876						
3	0	139	2	0	32	29	0
NL	bielaos01	24	10	0		3	1
CHN	1876						
7	4	264	2	0	62	62	0
NL	blongjo01	30	30	0		9	1

SL3	1876						
8	0	182	0	0	45	50	0
NL	bondto01	18	21	0		4	1
HAR	1876						
3	0	272	9	0	63	71	0
NL	bootham01	31	14	0		11	1
CN1	1876						
2	1	228	2	0	57	49	0
NL	boothed01	17	7	0		4	1
NY3	1876						
3	0	121	3	0	32	25	0
NL	bordejo01	19	7	0		3	1
BSN	1876						
2	1	82	2	0	22	19	0
NL	bradlfo01	12	8	0		3	1
BSN	1876						
7	6	265	3	0	64	66	0
NL	bradlge01	29	28	0		12	1
SL3	1876						
6	6	195	3	0	45	41	2
NL	brownle01	23	21	0		22	1
BSN	1876						
9	1	309	13	0	69	80	0
NL	burdoja01	66	23	0		16	1
HAR	1876						
0	0	21	0	0	5	1	0
NL	bushodo01	4	1	0		0	1
PHN	1876						
0	0	25	0	0	7	4	0
NL	carbijo01	3	1	0		0	1
LS1	1876						

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 7 | 0 | 289 | 3 | 0 | 68 | | 78 | | 0 |
| NL | | careyto01 | 51 | 26 | 0 | | | 4 | 1
| HAR | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 0 | 47 | 1 | 0 | 12 | | 13 | | 0 |
| NL | | cassijo01 | 6 | 8 | 0 | | | 0 | 1
| HAR | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 67 | 1 | 0 | 17 | | 16 | | 0 |
| NL | | chapmja01 | 4 | 5 | 0 | | | 3 | 1
| LS1 | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 1 | 118 | 5 | 0 | 32 | | 19 | | 0 |
| NL | | clackbo01 | 10 | 5 | 0 | | | 12 | 1
| CN1 | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 2 | 298 | 8 | 0 | 64 | | 91 | | 0 |
| NL | | clappjo01 | 60 | 29 | 0 | | | 2 | 1
| SL3 | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 0 | 65 | 0 | 0 | 16 | | 22 | | 0 |
| NL | | clintji01 | 8 | 0 | 0 | | | 0 | 1
| LS1 | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 28 | 0 | 0 | 7 | | 4 | | 0 |
| NL | | collida01 | 3 | 9 | 0 | | | 2 | 1
| LS1 | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 1 | 220 | 2 | 0 | 54 | | 50 | | 0 |
| NL | | coonwi01 | 30 | 22 | 0 | | | 4 | 1
| PHN | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 0 | 246 | 2 | 0 | 56 | | 55 | | 0 |
| NL | | cravebi01 | 24 | 22 | 0 | | | 7 | 1
| NY3 | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 0 | 105 | 0 | 0 | 24 | | 17 | | 0 |
| NL | | cummica01 | 14 | 7 | 0 | | | 3 | 1
| HAR | | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 12 | 0 | 0 | 3 | | 4 | 0 | 0 |
| NL | currepe01 | 5 | 2 | 0 | | 0 | 1
| PHN | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 1 | 283 | 7 | 0 | 63 | | 70 | 0 | 0 |
| NL | cuthbne01 | 46 | 25 | 0 | | 4 | 1
| SL3 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 1 | 138 | 2 | 0 | 34 | | 36 | 0 | 0 |
| NL | deando01 | 9 | 4 | 0 | | 13 | 1
| CN1 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 0 | 245 | 9 | 0 | 64 | | 45 | 0 | 0 |
| NL | dehlme01 | 40 | 9 | 0 | | 10 | 1
| SL3 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 14 | 1 | 298 | 1 | 0 | 68 | | 94 | 0 | 0 |
| NL | devliji01 | 38 | 28 | 0 | | 11 | 1
| LS1 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 0 | 174 | 2 | 0 | 39 | | 52 | 0 | 0 |
| NL | eggleda01 | 28 | 19 | 0 | | 4 | 1
| PHN | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | | 0 | 0 | 0 |
| NL | fairge01 | 0 | 0 | 0 | | 0 | 1
| NY3 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 8 | 5 | 310 | 2 | 0 | 69 | | 82 | 0 | 0 |
| NL | fergubo01 | 48 | 32 | 0 | | 11 | 1
| HAR | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 14 | 1 | 0 | 4 | | 0 | 0 | 0 |
| NL | fieldsa01 | 2 | 0 | 0 | | 3 | 1
| CN1 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 129 | 0 | 0 | 35 | | 32 | 0 | 0 |
| NL | fishech01 | 12 | 4 | 0 | | 8 | 1
| CN1 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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-----+-----+-----+
| 15 | 1 | 278 | 2 | 0 | 59 | 80 | 1 |
| NL | fislewe01 | 42 | 30 | 0 | 4 | 1 |
| PHN | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 3 | 2 | 221 | 0 | 0 | 58 | 50 | 0 |
| NL | foleywi01 | 19 | 9 | 0 | 14 | 1 |
| CN1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 6 | 0 | 284 | 5 | 0 | 60 | 66 | 0 |
| NL | forceda01 | 48 | 17 | 0 | 3 | 1 |
| PHN | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 |
| NL | forceda01 | 0 | 0 | 0 | 0 | 2 |
| NY3 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 1 | 89 | 0 | 0 | 21 | 12 | 0 |
| NL | fousebi01 | 11 | 2 | 0 | 0 | 1 |
| PHN | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 9 | 5 | 267 | 1 | 0 | 66 | 73 | 1 |
| NL | fulmech01 | 28 | 29 | 0 | 10 | 1 |
| LS1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 10 | 3 | 292 | 3 | 0 | 65 | 76 | 2 |
| NL | gerhajo01 | 33 | 18 | 0 | 5 | 1 |
| LS1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 9 | 2 | 276 | 12 | 0 | 66 | 84 | 0 |
| NL | glennjo01 | 55 | 32 | 0 | 6 | 1 |
| CHN | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 7 | 0 | 258 | 6 | 0 | 61 | 65 | 0 |
| NL | gouldch01 | 27 | 11 | 0 | 11 | 1 |
| CN1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 8 | 0 | 294 | 2 | 0 | 67 | 78 | 1 |
| NL | haguebi01 | 31 | 22 | 0 | 10 | 1 |
| LS1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+

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7	13	268	8	0	60		98		5
NL	hallge01	51	45	0			4		1
PHN	1876								
-----									
7	6	240	2	0	54		67		2
NL	halliji01	45	36	0			4		1
NY3	1876								
-----									
2	1	106	3	0	30		23		0
NL	harbibi01	11	6	0			2		1
HAR	1876								
-----									
6	1	283	5	0	67		73		0
NL	hastisc01	36	21	0			11		1
LS1	1876								
-----									
0	0	4	0	0	1		1		0
NL	hatfijo01	0	1	0			0		1
NY3	1876								
-----									
0	2	21	0	0	5		3		0
NL	hayesmi01	1	2	0			0		1
NY3	1876								
-----									
0	0	4	0	0	1		0		0
NL	heubege01	0	0	0			0		1
NY3	1876								
-----									
4	1	188	3	0	45		44		0
NL	hicksna01	20	15	0			4		1
NY3	1876								
-----									
21	2	312	2	0	67		102		0
NL	highadi01	59	35	0			7		1
HAR	1876								
-----									
21	3	305	1	0	64		101		2
NL	hinespa01	62	59	0			3		1
CHN	1876								
-----									
0	0	43	0	0	12		11		0



NL	holbebi01	3	5	0		3	1
LS1	1876						
3	2	241	1	0	52	64	0
NL	holdsji01	23	19	0		2	1
NY3	1876						
17	4	276	7	0	64	79	4
NL	jonesch01	40	38	0		17	1
CN1	1876						
5	0	248	7	0	59	64	0
NL	kesslhe01	26	11	0		10	1
CN1	1876						
9	3	240	2	0	55	60	0
NL	knighlo01	32	24	0		2	1
PHN	1876						
0	0	3	0	0	1	0	0
NL	laffefl01	0	0	0		0	1
PHN	1876						
0	0	4	0	0	1	0	0
NL	larkite01	0	0	0		0	1
NY3	1876						
10	2	303	4	0	64	85	0
NL	leonaan01	53	27	0		6	1
BSN	1876						
5	0	180	11	0	48	39	1
NL	mackde01	32	7	0		5	1
SL3	1876						
2	0	96	0	0	22	22	0
NL	malonfe01	14	6	0		1	1
PHN	1876						
0	1	7	0	0	2	2	0
NL	malonjo01	1	2	0		1	1

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| NY3      |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 13 | 0 | 288 | 7 | 0 | 70 |      | 76 |      | 2 |
| NL   | mannija01 | 52 | 25 | 0 |      |      | 5 |      | 1
| BSN   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 1 | 218 | 3 | 0 | 56 |      | 40 |      | 0 |
| NL   | mathebo01 | 19 | 9 | 0 |      |      | 2 |      | 1
| NY3   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 16 | 0 | 0 | 4 |      | 3 |      | 0 |
| NL   | mcbridi01 | 2 | 4 | 0 |      |      | 0 |      | 1
| BSN   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 0 | 276 | 2 | 0 | 61 |      | 72 |      | 0 |
| NL   | mcgeami01 | 48 | 30 | 0 |      |      | 1 |      | 1
| SL3   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 40 | 0 | 0 | 9 |      | 6 |      | 0 |
| NL   | mcginti01 | 5 | 2 | 0 |      |      | 1 |      | 1
| BSN   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 |      | 0 |      | 0 |
| NL   | mcguijo01 | 0 | 0 | 0 |      |      | 0 |      | 1
| NY3   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 15 | 0 | 308 | 2 | 0 | 63 |      | 107 |      | 1 |
| NL   | mcveyca01 | 62 | 53 | 0 |      |      | 4 |      | 1
| CHN   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 12 | 8 | 256 | 3 | 0 | 55 |      | 87 |      | 0 |
| NL   | meyerle01 | 46 | 34 | 0 |      |      | 2 |      | 1
| PHN   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 8 | 1 | 254 | 1 | 0 | 63 |      | 66 |      | 0 |
| NL   | millsev01 | 28 | 23 | 0 |      |      | 3 |      | 1
| HAR   |      1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 2 | 278 | 3 | 0 | 66 |      | 73 |      | 0 |
| NL   | morrijo01 | 38 | 26 | 0 |      |      | 5 |      | 1
| BSN   |      1876 |

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  3 |  0 |  0 |  1 |  |  0 |  |  0 |
| NL | mullejo01 | 0 | 0 | 0 |  |  | 0 | 1
| PHN | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  4 |  3 | 308 |  8 |  0 | 69 |  | 87 |  |  2 |
| NL | murnati01 | 60 | 34 | 0 |  |  | 12 | 1
| BSN | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  4 |  0 | 212 |  2 |  0 | 57 |  | 38 |  |  0 |
| NL | nichoal01 | 20 | 9 | 0 |  |  | 3 | 1
| NY3 | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  4 |  0 |  0 |  1 |  |  0 |  |  0 |
| NL | nichotr01 | 0 | 0 | 0 |  |  | 0 | 1
| BSN | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 17 |  3 | 312 | 15 |  0 | 70 |  | 102 |  |  2 |
| NL | orourji01 | 61 | 43 | 0 |  |  | 17 | 1
| BSN | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  4 |  0 |  0 |  1 |  |  0 |  |  0 |
| NL | parksbi01 | 0 | 0 | 0 |  |  | 0 | 1
| BSN | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  1 |  0 | 12 |  0 |  0 |  3 |  |  2 |  |  0 |
| NL | paullo01 | 2 | 0 | 0 |  |  | 0 | 1
| PHN | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  1 |  0 | 102 |  3 |  0 | 25 |  | 21 |  |  0 |
| NL | pearcdi01 | 12 | 10 | 0 |  |  | 5 | 1
| SL3 | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  2 |  0 |  0 |  1 |  |  0 |  |  0 |
| NL | pearcfr01 | 0 | 0 | 0 |  |  | 0 | 1
| LS1 | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 14 |  2 | 316 |  3 |  0 | 66 |  | 111 |  |  1 |
| NL | peterjo01 | 70 | 47 | 0 |  |  | 2 | 1
| CHN | 1876 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  3 |  0 |  0 |  1 |  |  0 |  |  0 |
| NL | phelpne01 | 0 | 0 | 0 |  |  | 1 | 1
| NY3 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  4 |  0 |  0 |  1 |  |  0 |  |  0 |
| NL | phelpne01 | 0 | 0 | 0 |  |  | 0 | 2
| PHN | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  4 |  1 | 233 |  1 |  0 | 57 |  | 55 |  |  0 |
| NL | piersda01 | 33 | 13 | 0 |  |  | 9 | 1
| CN1 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 19 | 10 | 282 |  8 |  0 | 63 |  | 91 |  |  1 |
| NL | pikeli01 | 55 | 50 | 0 |  |  | 9 | 1
| SL3 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 12 |  5 | 324 |  1 |  0 | 69 |  | 89 |  |  1 |
| NL | remseja01 | 62 | 30 | 0 |  |  | 15 | 1
| HAR | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  3 |  0 |  52 |  0 |  0 | 16 |  | 13 |  |  0 |
| NL | rittewh01 | 8 | 4 | 0 |  |  | 2 | 1
| PHN | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  5 |  1 | 241 |  6 |  0 | 64 |  | 61 |  |  1 |
| NL | ryanjo01 | 32 | 18 | 0 |  |  | 23 | 1
| LS1 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 11 |  0 | 286 |  4 |  0 | 70 |  | 72 |  |  0 |
| NL | schafha01 | 47 | 35 | 0 |  |  | 11 | 1
| BSN | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  3 |  0 |  0 |  1 |  |  0 |  |  0 |
| NL | sewarge01 | 0 | 0 | 0 |  |  | 0 | 1
| NY3 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  8 |  0 |  0 |  2 |  |  1 |  |  0 |
| NL | shandji01 | 0 | 0 | 0 |  |  | 0 | 1
| NY3 | 1876 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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-----+-----+-----+
| 4 | 1 | 224 | 2 | 0 | 56 | | 44 | | 1 |
| NL | snydepo01 | 21 | 9 | 0 | | | 7 | 1
| LS1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 3 | 1 | 205 | 1 | 0 | 55 | | 31 | | 0 |
| NL | snydere01 | 10 | 12 | 0 | | | 19 | 1
| CN1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 5 | 1 | 256 | 1 | 0 | 64 | | 48 | | 0 |
| NL | somered01 | 29 | 14 | 0 | | | 6 | 1
| LS1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 14 | 2 | 292 | 6 | 0 | 66 | | 91 | | 0 |
| NL | spalldal01 | 54 | 44 | 0 | | | 3 | 1
| CHN | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 6 | 0 | 264 | 1 | 0 | 56 | | 73 | | 0 |
| NL | startjo01 | 40 | 21 | 0 | | | 2 | 1
| NY3 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 12 | 7 | 236 | 3 | 0 | 54 | | 70 | | 1 |
| NL | suttoez01 | 45 | 31 | 0 | | | 2 | 1
| PHN | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 5 | 2 | 225 | 2 | 0 | 56 | | 46 | | 0 |
| NL | sweasch01 | 18 | 10 | 0 | | | 5 | 1
| CN1 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 5 | 1 | 256 | 1 | 0 | 57 | | 54 | | 0 |
| NL | treacfr01 | 47 | 18 | 0 | | | 5 | 1
| NY3 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 5 | 1 | 0 | 2 | | 0 | | 0 |
| NL | treacpe01 | 1 | 0 | 0 | | | 0 | 1
| NY3 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 3 | 0 | 0 | 1 | | 0 | | 0 |
| NL | valenbo01 | 0 | 0 | 0 | | | 0 | 1
| NY3 | 1876 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+

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0	0	4	0	0	1	2	0
NL	wardji01	1	1	0		1	1
PHN	1876						
0	0	3	0	0	1	0	0
NL	warnefr01	0	0	0		0	1
PHN	1876						
0	0	4	0	0	1	0	0
NL	westbi01	0	0	0		0	1
NY3	1876						
18	1	303	7	0	66	104	1
NL	whitede01	66	60	0		3	1
CHN	1876						
7	1	139	1	0	34	33	0
NL	whitnfr01	27	15	0		3	1
BSN	1876						
0	0	35	0	0	9	7	0
NL	willida01	1	1	0		4	1
CN1	1876						
18	6	335	8	0	70	100	1
NL	wrighge01	72	34	0		9	1
BSN	1876						
0	0	3	0	0	1	0	0
NL	wrighha01	0	0	0		1	1
BSN	1876						
0	0	8	0	0	2	1	0
NL	wrighsa01	0	0	0		0	1
BSN	1876						
12	7	263	10	0	67	68	1
NL	yorkto01	47	39	0		4	1
HAR	1876						
2	1	128	0	0	32	27	0

NL	zettlge01	11	11	0		5	1
PHN	1876						
2	3	245	6	0	57	68	0
NL	addybo01	27	31	0		5	1
CN1	1877						
2	0	115	3	0	29	17	0
NL	allisdo01	14	6	0		7	1
HAR	1877						
19	1	255	9	0	59	86	0
NL	ansonca01	52	32	0		3	1
CHN	1877						
1	0	92	7	0	22	25	0
NL	barnero01	16	5	0		4	1
CHN	1877						
0	0	4	0	0	1	1	0
NL	bassjo01	1	0	0		0	1
HAR	1877						
3	7	226	6	0	57	45	1
NL	battijo01	28	22	0		17	1
SL3	1877						
8	3	218	4	0	58	47	0
NL	blongjo01	17	13	0		22	1
SL3	1877						
4	3	259	1	0	61	59	0
NL	bondto01	32	30	0		15	1
BSN	1877						
2	1	157	12	0	44	27	0
NL	bootham01	16	13	0		10	1
CN1	1877						
7	3	214	6	0	55	52	0
NL	bradlge01	31	12	0		19	1

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| CHN      |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 12 | 8 | 221 | 6 | 0 | 58 |      | 56 |      | 1 |
| NL   | brownle01 | 27 | 31 | 0 |      |      | 33 |      | 1
| BSN   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 |      | 0 |      | 0 |
| NL   | buncejo01 | 0 | 0 | 0 |      |      | 0 |      | 1
| HAR   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 0 | 277 | 2 | 0 | 58 |      | 72 |      | 0 |
| NL   | burdoja01 | 35 | 9 | 0 |      |      | 16 |      | 1
| HAR   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 2 | 274 | 0 | 0 | 60 |      | 70 |      | 1 |
| NL   | careyto01 | 38 | 20 | 0 |      |      | 9 |      | 1
| HAR   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 5 | 251 | 3 | 0 | 60 |      | 95 |      | 0 |
| NL   | cassijo01 | 43 | 27 | 0 |      |      | 3 |      | 1
| HAR   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 6 | 255 | 8 | 0 | 60 |      | 81 |      | 0 |
| NL   | clappjo01 | 47 | 34 | 0 |      |      | 6 |      | 1
| SL3   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 2 | 238 | 5 | 0 | 57 |      | 63 |      | 0 |
| NL   | cravebi01 | 33 | 29 | 0 |      |      | 11 |      | 1
| LS1   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 2 | 220 | 1 | 0 | 54 |      | 51 |      | 0 |
| NL   | croftar01 | 23 | 27 | 0 |      |      | 15 |      | 1
| SL3   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 9 | 3 | 238 | 4 | 0 | 61 |      | 67 |      | 1 |
| NL   | cowlbi01 | 30 | 23 | 0 |      |      | 13 |      | 1
| LS1   |      1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 2 | 70 | 4 | 0 | 19 |      | 14 |      | 0 |
| NL   | cummica01 | 6 | 4 | 0 |      |      | 6 |      | 1
| CN1   |      1877 |

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  5 |  0 |  56 |  1 |  0 | 12 |  | 10 |  |  0 |
| NL |  | cuthbne01 | 6 |  2 |  0 |  |  | 2 |  | 1
| CN1 |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  4 |  0 | 119 |  7 |  0 | 32 |  | 22 |  |  0 |
| NL |  | dehlmhe01 | 24 | 11 |  0 |  |  | 21 |  | 1
| SL3 |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  6 |  3 | 268 |  7 |  0 | 61 |  | 72 |  |  1 |
| NL |  | devliji01 | 38 | 27 |  0 |  |  | 27 |  | 1
| LS1 |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  9 |  7 | 266 |  9 |  0 | 60 |  | 82 |  |  0 |
| NL |  | dorgami01 | 45 | 23 |  0 |  |  | 13 |  | 1
| SL3 |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  1 |  55 |  3 |  0 | 15 |  | 12 |  |  0 |
| NL |  | edencho1 | 9 |  5 |  0 |  |  | 6 |  | 1
| CHN |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  3 |  0 | 136 |  1 |  0 | 33 |  | 36 |  |  0 |
| NL |  | eggleda01 | 20 | 20 |  0 |  |  | 5 |  | 1
| CHN |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  7 |  2 | 254 |  3 |  0 | 58 |  | 65 |  |  0 |
| NL |  | fergubo01 | 40 | 35 |  0 |  |  | 10 |  | 1
| HAR |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  0 |  0 |  4 |  0 |  0 | 1 |  |  0 |  |  0 |
| NL |  | fishech01 | 0 |  0 |  0 |  |  | 2 |  | 1
| CHN |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  5 |  1 | 216 |  4 |  0 | 56 |  | 41 |  |  0 |
| NL |  | foleywi01 | 23 | 18 |  0 |  |  | 13 |  | 1
| CN1 |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
|  5 |  3 | 225 | 11 |  0 | 58 |  | 59 |  |  0 |
| NL |  | forceda01 | 24 | 22 |  0 |  |  | 15 |  | 1
| SL3 |  | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

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-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 5 | 250 | 5 | 0 | 59 | | 76 | | 1 |
| NL | gerhajo01 | 41 | 35 | 0 | | | 8 | 1
| LS1 | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | | 1 | | 0 |
| NL | gleasja01 | 0 | 0 | 0 | | | 1 | 1
| SL3 | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 6 | 1 | 202 | 8 | 0 | 50 | | 46 | | 0 |
| NL | glennjo01 | 31 | 20 | 0 | | | 16 | 1
| CHN | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 1 | 91 | 5 | 0 | 24 | | 25 | | 0 |
| NL | gouldch01 | 5 | 13 | 0 | | | 5 | 1
| CN1 | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 7 | 1 | 263 | 7 | 0 | 59 | | 70 | | 1 |
| NL | haguebi01 | 38 | 24 | 0 | | | 18 | 1
| LS1 | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 4 | 0 | 0 | 1 | | 0 | | 0 |
| NL | haldejo01 | 0 | 0 | 0 | | | 0 | 1
| LS1 | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 15 | 8 | 269 | 12 | 0 | 61 | | 87 | | 0 |
| NL | hallge01 | 53 | 26 | 0 | | | 19 | 1
| LS1 | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 1 | 73 | 1 | 0 | 16 | | 27 | | 0 |
| NL | halliji01 | 18 | 7 | 0 | | | 1 | 1
| CN1 | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 4 | 1 | 89 | 4 | 0 | 19 | | 25 | | 0 |
| NL | halliji01 | 17 | 11 | 0 | | | 2 | 2
| CHN | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 2 | 167 | 3 | 0 | 41 | | 37 | | 0 |
| NL | harbibi01 | 18 | 8 | 0 | | | 6 | 1
| HAR | 1877 |
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

```

-----+-----+-----+
| 1 | 0 | 71 | 3 | 0 | 20 | | 10 | | 0 |
| NL | hastisc01 | 7 | 3 | 0 | | | 6 | 1
| CN1 | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 32 | 1 | 0 | 8 | | 6 | | 0 |
| NL | hicksna01 | 3 | 3 | 0 | | | 2 | 1
| CN1 | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 11 | 7 | 261 | 1 | 0 | 60 | | 73 | | 0 |
| NL | hinespa01 | 44 | 23 | 0 | | | 8 | 1
| CHN | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 5 | 2 | 260 | 2 | 0 | 55 | | 66 | | 0 |
| NL | holdsji01 | 26 | 20 | 0 | | | 8 | 1
| HAR | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 3 | 3 | 69 | 4 | 0 | 17 | | 21 | 0 | 1 | 0
| NL | jonesch01 | 16 | 10 | 0 | | 0 | 8 | 1
| CN1 | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 1 | 0 | 8 | 1 | 0 | 2 | | 3 | | 0 |
| NL | jonesch01 | 1 | 2 | 0 | | | 0 | 2
| CHN | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 8 | 7 | 163 | 10 | 0 | 38 | | 51 | | 1 |
| NL | jonesch01 | 36 | 26 | 0 | | | 17 | 3
| CN1 | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 20 | 2 | 0 | 6 | | 2 | | 0 |
| NL | kesslhe01 | 0 | 0 | 0 | | | 1 | 1
| CN1 | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 1 | 0 | 17 | 0 | 0 | 4 | | 1 | | 0 |
| NL | laffefl01 | 2 | 0 | 0 | | | 4 | 1
| LS1 | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 6 | 5 | 228 | 5 | 0 | 58 | | 52 | | 1 |
| NL | larkite01 | 28 | 18 | 0 | | | 23 | 1
| HAR | 1877 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+

```

10	6	278	5	0	59	81	0
NL	lathaju01	42	22	0		6	1
LS1	1877						
1	0	18	0	0	4	5	0
NL	leele01	0	0	0		1	1
SL3	1877						
5	0	272	5	0	58	78	0
NL	leonaan01	46	27	0		5	1
BSN	1877						
0	0	12	1	0	3	2	0
NL	littlha01	2	0	0		6	1
SL3	1877						
0	0	3	1	0	1	0	0
NL	littlha01	0	0	0		1	2
LS1	1877						
0	0	11	0	0	3	2	0
NL	loftuto01	2	0	0		1	1
SL3	1877						
0	0	4	0	0	1	1	0
NL	malonjo01	0	0	0		0	1
HAR	1877						
16	7	252	5	0	57	80	0
NL	mannija01	47	36	0		6	1
CN1	1877						
0	0	59	1	0	15	10	0
NL	mathebo01	5	0	0		2	1
CN1	1877						
3	2	258	2	0	57	65	0
NL	mcgeami01	35	20	0		6	1
SL3	1877						
0	0	5	0	0	1	1	0

NL	mckenpa01	0	0	0		1	1
SL3	1877						
9	7	266	8	0	60	98	0
NL	mcveyca01	58	36	0		11	1
CHN	1877						
7	2	107	0	0	27	35	0
NL	meyerle01	11	15	0		4	1
CN1	1877						
1	0	37	5	0	11	6	0
NL	millege01	4	3	0		2	1
CN1	1877						
3	0	49	1	0	13	10	0
NL	mitchbo01	5	5	0		2	1
CN1	1877						
5	1	242	6	0	61	73	0
NL	morrijo01	47	28	0		15	1
BSN	1877						
7	1	140	6	0	35	39	1
NL	murnati01	23	15	0		7	1
BSN	1877						
0	0	3	0	0	1	0	0
NL	newelte01	0	0	0		0	1
SL3	1877						
0	1	19	0	0	6	4	0
NL	nichoal01	1	0	0		2	1
LS1	1877						
4	2	186	3	0	51	31	0
NL	nichotr01	22	9	0		15	1
SL3	1877						
14	4	265	20	0	61	96	0
NL	orourji01	68	23	0		9	1

BSN		1877														
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
0	0	29	1	0	8		5		0							
NL	pearcdi01	1	4	0			4		1							
SL3	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
10	3	265	1	0	60		84		0							
NL	peterjo01	45	41	0			7		1							
CHN	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
0	0	4	0	0	1		1		0							
NL	pikeja01	0	0	0			0		1							
HAR	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
12	4	262	9	0	58		78		4							
NL	pikeli01	45	23	0			7		1							
CN1	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
0	0	14	1	0	4		1		0							
NL	quinnpa02	1	0	0			0		1							
CHN	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
1	0	12	1	0	3		3		0							
NL	redmobi01	1	3	0			1		1							
CN1	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
0	0	16	0	0	4		2		0							
NL	reisla01	3	1	0			0		1							
CHN	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
3	4	123	4	0	33		32		0							
NL	remseja01	14	13	0			3		1							
SL3	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
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0	0	7	0	0	2		2		0							
NL	roweda01	0	0	0			3		1							
CHN	1877															
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+																
0	1	26	1	0	6		4		0							
NL	ryanjo01	2	2	0			5		1							
CN1	1877															

```

+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 5 | 2 | 141 | 0 | 0 | 33 | | 39 | | 0 |
| NL | schafha01 | 20 | 13 | 0 | | 7 | 1
| BSN | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 9 | 5 | 260 | 9 | 0 | 61 | | 74 | | 3 |
| NL | shaffor01 | 38 | 34 | 0 | | 17 | 1
| LS1 | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 0 | 94 | 4 | 0 | 24 | | 19 | | 0 |
| NL | smithha01 | 7 | 3 | 0 | | 6 | 1
| CHN | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | 1 | 36 | 1 | 0 | 10 | | 9 | | 0 |
| NL | smithha01 | 4 | 3 | 0 | | 5 | 2
| CN1 | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 7 | 2 | 248 | 3 | 0 | 61 | | 64 | | 2 |
| NL | snydepo01 | 23 | 28 | 0 | | 14 | 1
| LS1 | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 7 | 6 | 254 | 3 | 0 | 60 | | 65 | | 0 |
| NL | spaldal01 | 29 | 35 | 0 | | 16 | 1
| CHN | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 3 | 6 | 271 | 6 | 0 | 60 | | 90 | | 1 |
| NL | startjo01 | 55 | 21 | 0 | | 2 | 1
| HAR | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 32 | 1 | 0 | 8 | | 8 | | 0 |
| NL | sullich01 | 4 | 4 | 0 | | 0 | 1
| CN1 | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 10 | 6 | 253 | 4 | 0 | 58 | | 74 | | 0 |
| NL | suttoez01 | 43 | 39 | 0 | | 10 | 1
| BSN | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 0 | 0 | 8 | 0 | 0 | 2 | | 3 | | 0 |
| NL | taylorli01 | 0 | 0 | 0 | | 2 | 1
| HAR | 1877 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```




```

-----+-----+-----+
| 4 | 1 | 236 | 0 | 0 | 59 | 50 | 0 |
| NL | bondto01 | 22 | 23 | 0 | 9 | 1
| BSN | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 21 | 6 | 243 | 7 | 0 | 58 | 74 | 1 |
| NL | brownle01 | 44 | 43 | 0 | 37 | 1
| PRO | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 12 | 6 | 246 | 3 | 0 | 60 | 64 | 0 |
| NL | burdoja01 | 37 | 25 | 0 | 17 | 1
| BSN | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 10 | 3 | 253 | 0 | 0 | 61 | 60 | 0 |
| NL | careyto01 | 33 | 24 | 0 | 14 | 1
| PRO | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 7 | 1 | 256 | 9 | 0 | 60 | 68 | 0 |
| NL | cassijo01 | 33 | 29 | 0 | 11 | 1
| CHN | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 10 | 2 | 263 | 13 | 0 | 63 | 80 | 0 |
| NL | clappjo01 | 42 | 29 | 0 | 8 | 1
| IN1 | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 0 | 0 | 21 | 0 | 0 | 7 | 3 | 0 |
| NL | coreyfr01 | 3 | 1 | 0 | 2 | 1
| PRO | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 7 | 3 | 193 | 5 | 0 | 50 | 41 | 0 |
| NL | creamge01 | 30 | 15 | 0 | 15 | 1
| ML2 | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 6 | 0 | 222 | 5 | 0 | 60 | 35 | 0 |
| NL | croftar01 | 22 | 16 | 0 | 23 | 1
| IN1 | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+
| 10 | 4 | 271 | 6 | 0 | 61 | 96 | 0 |
| NL | dalryab01 | 52 | 15 | 0 | 29 | 1
| ML2 | 1878 |
-----+-----+-----+
-----+-----+-----+
-----+-----+-----+

```

5	1	123	0	0	29		38		0
NL	dickebu01	17	9	0			7		1
CN1	1878								
0	0	13	0	0	3		2		0
NL	ellicjo01	2	1	0			1		1
ML2	1878								
10	2	259	10	0	61		91		0
NL	fergubo01	44	39	0			12		1
CHN	1878								
0	0	3	0	0	1		0		0
NL	fishech01	0	0	0			0		1
PRO	1878								
7	0	254	2	0	63		57		0
NL	flintsi01	23	18	0			15		1
IN1	1878								
8	5	229	7	0	56		62		0
NL	foleywi01	33	22	0			14		1
ML2	1878								
13	2	237	10	0	61		52		0
NL	geerbi01	31	20	0			18		1
CN1	1878								
7	2	259	7	0	60		77		0
NL	gerhajo01	46	28	0			14		1
CN1	1878								
6	3	214	3	0	55		44		0
NL	goldemi01	16	20	0			35		1
ML2	1878								
4	3	252	7	0	60		62		1
NL	goodmja01	28	27	0			33		1
ML2	1878								
3	0	250	5	0	62		51		0

NL	haguebi01	21	25	0		34	1
PRO	1878						
3	0	67	5	0	16	19	0
NL	halliji01	14	2	0		6	1
CHN	1878						
2	0	12	0	0	3	3	0
NL	halliji01	0	1	0		2	2
IN1	1878						
8	3	240	5	0	58	64	1
NL	hankifr01	38	27	0		36	1
CHN	1878						
12	0	240	6	0	54	71	0
NL	harbibi01	32	37	0		13	1
CHN	1878						
1	0	9	0	0	3	2	0
NL	healeto01	0	2	0		4	1
PRO	1878						
1	0	45	0	0	12	8	0
NL	healeto01	2	4	0		14	2
IN1	1878						
22	1	281	5	0	62	90	1
NL	highadi01	60	29	0		16	1
PRO	1878						
13	4	257	2	0	62	92	4
NL	hinespa01	42	50	0		10	1
PRO	1878						
2	0	173	3	0	45	32	0
NL	holbebi01	10	12	0		14	1
ML2	1878						
0	0	2	1	0	1	0	0
NL	jennial01	0	0	0		0	1

**Please Note: I have reduced the sizes of batting and appearances as the code was taking too long to run. Both dumb\_join() and smart\_join() are tested on the same data to maintain consistency**

In [24]:

```
# Might throw an error depending on table size  
# Make sure it works properly when you run it in pycharm though!  
tab.dumb_join_test()
```

Loading core definition

Q = select path from csvtables where table\_name = %s

Loading columns

Q = select \* from csvcolumns where table\_name = %s

Q = select column\_name, type, index\_name, index\_order from csvindexes where table\_name = %s order by index\_name, index\_order

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

Loading core definition

Q = select path from csvtables where table\_name = %s

Loading columns

Q = select \* from csvcolumns where table\_name = %s

Q = select column\_name, type, index\_name, index\_order from csvindexes where table\_name = %s order by index\_name, index\_order

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

```
{'2B': '0', '3B': '0', 'AB': '4', 'BB': '0', 'CS': '0', 'G': '1', 'GIDP':
'', 'H': '0', 'HBP': '', 'HR': '0', 'IBB': '', 'lgID': 'NA', 'playerID':
'abercda01', 'R': '0', 'RBI': '0', 'SB': '0', 'SF': '', 'SH': '', 'SO':
'0', 'stint': '1', 'teamID': 'TRO', 'yearID': '1871'}
```

Processed 10 left rows.

Processed 20 left rows.

Processed 30 left rows.

Processed 40 left rows.

Processed 50 left rows.

Processed 60 left rows.

Processed 70 left rows.

Processed 80 left rows.

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Processed 120 left rows.

Processed 130 left rows.

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Processed 750 left rows.  
Processed 760 left rows.  
Processed 770 left rows.  
Processed 780 left rows.  
Processed 790 left rows.  
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Processed 820 left rows.  
Processed 830 left rows.  
Processed 840 left rows.  
Processed 850 left rows.  
Processed 860 left rows.  
Processed 870 left rows.  
Processed 880 left rows.

Processed 890 left rows.  
 Processed 900 left rows.  
 Processed 910 left rows.  
 Processed 920 left rows.  
 Processed 930 left rows.  
 Processed 940 left rows.  
 Processed 950 left rows.  
 Processed 960 left rows.  
 Processed 970 left rows.  
 Processed 980 left rows.  
 Processed 990 left rows.

playerID	yearID	teamID	AB	H	G_all	G_batting
abercda01	1871	TRO	4	0	1	1

In [25]:

```
tab.get_access_path_test()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

```
{
  "index_name": "primary",
  "type": "PRIMARY",
  "columns": [
    "playerID",
    "yearID",
    "stint"
  ]
}
```

999



In [26]:

```
tab.sub_where_template_test()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

```
{'stint': '3', 'playerID': 'ras120', 'yearID': '34567'}
```

In [27]:

```
tab.test_find_by_template_index()
```

Loading core definition

```
Q = select path from csvtables where table_name = %s
```

Loading columns

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

```
[{'2B': '0', '3B': '0', 'AB': '4', 'BB': '0', 'CS': '0', 'G': '1', 'GIDP': '0', 'H': '0', 'HBP': '0', 'HR': '0', 'IBB': '0', 'lgID': 'NA', 'playerID': 'abercda01', 'R': '0', 'RBI': '0', 'SB': '0', 'SF': '0', 'SH': '0', 'SO': '0', 'stint': '1', 'teamID': 'TRO', 'yearID': '1871'}]
```

In [28]:

```
tab.smart_join_test()
```

```
Loading core definition
```

```
Q = select path from csvtables where table_name = %s
```

```
Loading columns
```

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Loaded 100 rows
```

```
Loaded 200 rows
```

```
Loaded 300 rows
```

```
Loaded 400 rows
```

```
Loaded 500 rows
```

```
Loaded 600 rows
```

```
Loaded 700 rows
```

```
Loaded 800 rows
```

```
Loaded 900 rows
```

```
Loading core definition
```

```
Q = select path from csvtables where table_name = %s
```

```
Loading columns
```

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Loaded 100 rows
```

```
Loaded 200 rows
```

```
Loaded 300 rows
```

```
Loaded 400 rows
```

```
Loaded 500 rows
```

```
Loaded 600 rows
```

```
Loaded 700 rows
```

```
Loaded 800 rows
```

```
Loaded 900 rows
```

```
{'2B': '0', '3B': '0', 'AB': '4', 'BB': '0', 'CS': '0', 'G': '1', 'GIDP':  
'', 'H': '0', 'HBP': '', 'HR': '0', 'IBB': '', 'lgID': 'NA', 'playerID':  
'abercda01', 'R': '0', 'RBI': '0', 'SB': '0', 'SF': '', 'SH': '', 'SO':  
'0', 'stint': '1', 'teamID': 'TRO', 'yearID': '1871'}
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+
-----+
| playerID | yearID | teamID | stint | AB | H | G_all | G_
batting |
+=====+=====+=====+=====+=====+=====+=====+=====+
=====+
| abercda01 | 1871 | TRO | 1 | 4 | 0 | 1 |
1 |
+-----+-----+-----+-----+-----+-----+-----+-----+
-----+
```

**Please Note: The below tests are run on reduced data size. We can observe that smart join performs 10X times faster on the same data.**

In [32]:

```
# Compare the time it takes to do the dumb join and the smart join below  
#This is a timer that will track how long it takes to execute your cell.  
  
# Times will vary based on how long it takes to query your AWS Server, but you should see a notable improvement using smart_join()  
  
#----Your Code Here---  
%time tab.dumb_join_test()
```

Loading core definition

Q = select path from csvtables where table\_name = %s

Loading columns

Q = select \* from csvcolumns where table\_name = %s

Q = select column\_name, type, index\_name, index\_order from csvindexes where table\_name = %s order by index\_name, index\_order

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

Loading core definition

Q = select path from csvtables where table\_name = %s

Loading columns

Q = select \* from csvcolumns where table\_name = %s

Q = select column\_name, type, index\_name, index\_order from csvindexes where table\_name = %s order by index\_name, index\_order

Loaded 100 rows

Loaded 200 rows

Loaded 300 rows

Loaded 400 rows

Loaded 500 rows

Loaded 600 rows

Loaded 700 rows

Loaded 800 rows

Loaded 900 rows

```
{'2B': '0', '3B': '0', 'AB': '4', 'BB': '0', 'CS': '0', 'G': '1', 'GIDP':
'', 'H': '0', 'HBP': '', 'HR': '0', 'IBB': '', 'lgID': 'NA', 'playerID':
'abercda01', 'R': '0', 'RBI': '0', 'SB': '0', 'SF': '', 'SH': '', 'SO':
'0', 'stint': '1', 'teamID': 'TRO', 'yearID': '1871'}
```

Processed 10 left rows.

Processed 20 left rows.

Processed 30 left rows.

Processed 40 left rows.

Processed 50 left rows.

Processed 60 left rows.

Processed 70 left rows.

Processed 80 left rows.

Processed 90 left rows.

Processed 100 left rows.

Processed 110 left rows.

Processed 120 left rows.

Processed 130 left rows.

Processed 140 left rows.

Processed 150 left rows.

Processed 160 left rows.

Processed 170 left rows.

Processed 180 left rows.

Processed 190 left rows.

Processed 200 left rows.

Processed 210 left rows.

Processed 220 left rows.

Processed 230 left rows.

Processed 240 left rows.

Processed 250 left rows.

Processed 260 left rows.

Processed 270 left rows.

Processed 280 left rows.  
Processed 290 left rows.  
Processed 300 left rows.  
Processed 310 left rows.  
Processed 320 left rows.  
Processed 330 left rows.  
Processed 340 left rows.  
Processed 350 left rows.  
Processed 360 left rows.  
Processed 370 left rows.  
Processed 380 left rows.  
Processed 390 left rows.  
Processed 400 left rows.  
Processed 410 left rows.  
Processed 420 left rows.  
Processed 430 left rows.  
Processed 440 left rows.  
Processed 450 left rows.  
Processed 460 left rows.  
Processed 470 left rows.  
Processed 480 left rows.  
Processed 490 left rows.  
Processed 500 left rows.  
Processed 510 left rows.  
Processed 520 left rows.  
Processed 530 left rows.  
Processed 540 left rows.  
Processed 550 left rows.  
Processed 560 left rows.  
Processed 570 left rows.  
Processed 580 left rows.  
Processed 590 left rows.  
Processed 600 left rows.  
Processed 610 left rows.  
Processed 620 left rows.  
Processed 630 left rows.  
Processed 640 left rows.  
Processed 650 left rows.  
Processed 660 left rows.  
Processed 670 left rows.  
Processed 680 left rows.  
Processed 690 left rows.  
Processed 700 left rows.  
Processed 710 left rows.  
Processed 720 left rows.  
Processed 730 left rows.  
Processed 740 left rows.  
Processed 750 left rows.  
Processed 760 left rows.  
Processed 770 left rows.  
Processed 780 left rows.  
Processed 790 left rows.  
Processed 800 left rows.  
Processed 810 left rows.  
Processed 820 left rows.  
Processed 830 left rows.  
Processed 840 left rows.  
Processed 850 left rows.  
Processed 860 left rows.  
Processed 870 left rows.  
Processed 880 left rows.

Processed 890 left rows.  
Processed 900 left rows.  
Processed 910 left rows.  
Processed 920 left rows.  
Processed 930 left rows.  
Processed 940 left rows.  
Processed 950 left rows.  
Processed 960 left rows.  
Processed 970 left rows.  
Processed 980 left rows.  
Processed 990 left rows.

playerID	yearID	teamID	AB	H	G_all	G_batting
abercda01	1871	TRO	4	0	1	1

Wall time: 2.21 s

In [33]:

```
%time tab.smart_join_test()
```

```
Loading core definition
```

```
Q = select path from csvtables where table_name = %s
```

```
Loading columns
```

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Loaded 100 rows
```

```
Loaded 200 rows
```

```
Loaded 300 rows
```

```
Loaded 400 rows
```

```
Loaded 500 rows
```

```
Loaded 600 rows
```

```
Loaded 700 rows
```

```
Loaded 800 rows
```

```
Loaded 900 rows
```

```
Loading core definition
```

```
Q = select path from csvtables where table_name = %s
```

```
Loading columns
```

```
Q = select * from csvcolumns where table_name = %s
```

```
Q = select column_name, type, index_name, index_order from csvindexes where table_name = %s order by index_name, index_order
```

```
Loaded 100 rows
```

```
Loaded 200 rows
```

```
Loaded 300 rows
```

```
Loaded 400 rows
```

```
Loaded 500 rows
```

```
Loaded 600 rows
```

```
Loaded 700 rows
```

```
Loaded 800 rows
```

```
Loaded 900 rows
```

```
{'2B': '0', '3B': '0', 'AB': '4', 'BB': '0', 'CS': '0', 'G': '1', 'GIDP':  
'', 'H': '0', 'HBP': '', 'HR': '0', 'IBB': '', 'lgID': 'NA', 'playerID':  
'abercda01', 'R': '0', 'RBI': '0', 'SB': '0', 'SF': '', 'SH': '', 'SO':  
'0', 'stint': '1', 'teamID': 'TRO', 'yearID': '1871'}
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+  
-----+  
| playerID | yearID | teamID | stint | AB | H | G_all | G_  
batting |  
+=====+=====+=====+=====+=====+=====+=====+=====+  
=====+  
| abercda01 | 1871 | TRO | 1 | 4 | 0 | 1 |  
1 |
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+  
-----+
```

```
Wall time: 248 ms
```