Data Driven Detroit
Technical Documentation

File name: ArchivalTaxForeclosures_2002to2013.mdb

Theme: Land; Housing

Data source: Wayne County Treasurer

Year of data source: 2002 - 2013

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Purpose

This document accompanies the file named above, which contains Data Driven Detroit's (D3's) historical data on tax foreclosures in the City of Detroit. The data were compiled into a single file in September 2013, and were subsequently integrated into the Motor City Mapping project. The data identify properties that were listed in the annual Wayne County tax auction in any year from 2002 to 2013. The purpose of this file is to help provide information on how Detroit's tax foreclosure crisis has developed over a considerable period of time, enabling community members and decision-makers to make more informed decisions when developing strategies to combat this growing problem.

Creating the Initial Table

The analyst assembled this file from four original datasets: three lists of properties from Wayne County Treasurer's tax auction in 2011, 2012, and 2013, as well as an archival tax foreclosure file that had been previously compiled by D3, covering 2002 to 2010.

Because much of the data assembled from these sources existed only in tabular format, the analyst created a comprehensive table before processing the data into a spatial format. This followed a five-step process.

1. Extract Parcel ID and Year: From each table, the analyst extracted the Parcel ID and year of foreclosure, to create four tables that could easily be merged into a single file. Where the "Year" field was not included in the original table, the analyst populated these values using an 'update' query.

2. Append Records: Using the extract from the Archival Tax Foreclosure table as a base, the analyst appended the extracted parcel IDs and year of foreclosure from the tables for 2011, 2012, and 2013, creating a single file with all tax foreclosure records.

3. Create "Total Universe" table: Once the analyst had appended all records onto the extract from the Archival Tax Foreclosure table, he designed a query to create a new table that would house flags for identifying the year of each foreclosure. This query created a copy of the Archival Tax Foreclosure table, while also creating a number of new columns. Each new column, from "FC_2002" to "FC_2013," was intended to serve as a flag field identifying the year of foreclosure.

4. Populate the Flag Fields: The analyst then populated the flag fields, based on the year identified in the "Auction_Year" column. Each column populated with a value of 1 if the year in the column title matched the value in the auction year field.

5. De-Duplicate/Create the Final Table: Finally, the analyst created a de-duplicated version of the tax foreclosure table by using a query to group the records by Parcel ID. For the FC_2002 through FC_2013 fields, the analyst used a 'count' operation to aggregate the data. This resulted in each column having a value of 0 or 1 for each foreclosure year. This query also created three new fields:
   a. First_Auction_Year: First Auction Year listed for the parcel
   b. Last_Auction_Year: Last Auction Year listed for the parcel
   c. FC_All: Count of the total number of times the parcel was subject to Tax Foreclosure from 2002 - 2013

The de-duplication process reduced the total number of records from 95,657 to 83,457.

Spatializing the Data

After the final de-duplication, the analyst spatialized the data by joining it to a cleaned, point-level version of the 2013 City of Detroit parcel file that had been developed for use in the Motor City Mapping project. Since parcels and their accompanying IDs change over time, a small number of records did not have matches in the cleaned version of the Detroit parcel file that D3 used for the Motor City Mapping project. Fewer than 100 parcels fell into this category overall, reducing the total number of spatialized tax foreclosures to 83,381. Specific breakdowns of the total drop-off by year can be seen below:

Year	Original File	Spatialized File
2002	249	247
2003	2,501	2,489
2004	2,046	2,039
2005	2,096	2,090
2006	5,120	5,100
2007	2,256	2,251
2008	4,101	4,100
2009	8,015	8,008
2010	11,591	11,588
2011	13,004	13,001
2012	20,040	20,030
2013	18,758	18,753
Total Parcels	83,457	83,381