



# Using Data to Target Foreclosure Interventions

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\* The views expressed here are those of the author and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.



# Presentation Overview

- A framework for getting started
  - Asking questions
- The trouble with foreclosure data
- Data sources and interventions
  - An overview of common and less common sources
- Layering data and Early Warning Systems
- Public/Web-based data and mapping resources
- Summary



# Getting Started

- Before getting started, ask some basic questions:
  - Who do I want to know about?
  - What do I want to know?
  - When do I want to know it?
  - Why do I want to know it?
  - How do I plan to intervene?



# Getting Started

- Who?
  - Individual or aggregate borrowers
- What?
  - Status or terms of the mortgage (e.g., current, delinquent, ARM)
  - Status of the property (e.g., investor owned, in REO, vacant or abandoned)
  - Status of the borrowers (e.g., credit history)



# Getting Started

- When?
  - Event or action related to the mortgage or property (e.g., loan origination, delinquency, foreclosure)
  - Past, present or future
- Why?
  - Focus of the intervention (e.g., Identify and contact borrowers)
- How?
  - Intervention (e.g., canvassing homes in a neighborhood)



# The trouble with foreclosure data

- Lessons learned from Minneapolis Fed analysis of the geographic distribution of foreclosures in the Twin Cities:
  - Detailed data on foreclosures is not easy to gather
  - Data on foreclosures is not always timely
  - Proxies can be useful (some of the time)
  - “Trade-offs” often exist (e.g., timeliness vs. geographic detail) with data
  - No comprehensive data system to meet the needs of all partners currently exists



# Data Sources

## ➤ Common

- County records
- RealtyTrac and Foreclosures.com
- Mortgage Bankers Association
- Home Mortgage Disclosure Act
- LoanPerformance

## ➤ Less common

- Credit scores
- Other “administrative” data



# Data sources: County Records

- State law guides the foreclosure process
- Notice of foreclosure and foreclosure sale notice
  - Pros:
    - Timely
    - Public documents
    - Comprehensive information
  - Cons
    - Limited electronic access
      - Paper records are still common
    - Limited ability to link to other public records





# Data sources: RealtyTrac.com, et al.

- Notice of foreclosure and foreclosure sale notice
  - Pros:
    - Timely
    - Electronic format
    - Geographic detail
  - Cons
    - Limited geographic coverage
    - Limited historical information
    - Modest subscription cost



# Data sources: MBAA

- Loan delinquencies and foreclosure starts
  - Pros:
    - Timely
    - Distinguishes loans by type/ARM
    - Historical series
    - Comparative
  - Cons
    - State level aggregation not good for targeting interventions
    - Modest subscription cost



# Data sources: LoanPerformance

- Private firms that tracks the performance of a large pool of securitized subprime and Alt-loans
  - Pros:
    - Good information about the loan and borrower
    - Covers the riskiest pool of loans in the mortgage market
    - Comprehensive coverage and an ongoing database
  - Cons
    - Does not cover prime loans
    - Time lag of three months
    - Aggregated to the ZIP Code-level
    - **Very** costly subscription (see also [www.newyorkfed.org](http://www.newyorkfed.org) and [www.frbsf.org/community](http://www.frbsf.org/community) )



# Data sources: HMDA

- Federal regulation that requires financial institutions to disclose loan application information
- Indicator
  - Pros:
    - Good information about the loan and borrower
      - Investor-owned properties
    - Distinguish high-cost loans
    - Comprehensive (80 percent of the mortgage market)
    - Free ([www.ffiec.gov/hmda](http://www.ffiec.gov/hmda))
  - Cons
    - Time lag of one-year
    - Aggregated to the census tract
    - Custom analysis may require some data analysis expertise (see also [www.dataplace.org](http://www.dataplace.org))



# Data sources: Credit scores

- Three National Credit Bureaus sell aggregate information
- Indicator
  - Pros:
    - Credit scores can be a good indicator of a household's financial position
    - Often can differentiate between mortgaged and non-mortgaged households
  - Cons
    - Time lag of one year or more
    - Aggregated to census tract
    - Modest cost



# Data sources: Administrative data

- Delinquent utility bills
  - Water, electricity and other municipal services
- Delinquent property taxes
- Counts of property related crimes
- Property status
  - Homestead credit
- Housing price trends



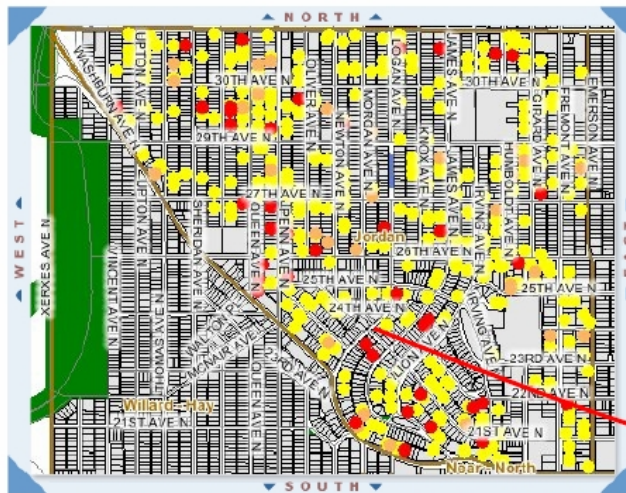


# Data sources: Early Warning Systems

- Linking multiple sources of data, often through GIS application, to get ahead of the curve
- City of Minneapolis
  - Identifying vacant and abandoned properties ahead of time
  - Used eight layers of administrative data (property status, code violations, delinquencies) across data silos to rank properties by four risk categories
  - Recently expanded to incorporate other data and address foreclosure-related issues



# Data sources: Early Warning Systems



Info  
Mode



Parcel Data Detail - Microsoft Internet Explorer

Address: [http://taxes.ci.minneapolis.mn.us/fmsapp/CW5\\_PrepQuery.aspx?z=200&r=177](http://taxes.ci.minneapolis.mn.us/fmsapp/CW5_PrepQuery.aspx?z=200&r=177)

### Early Warning System Parcel Score

Parcel ID: 35029244201E3  
Street Address: 2628 13TH AVE S  
[More About This Property](#)

Model scoring detail for this parcel:

Model Element	Score	Value	Attributes
Building Condition	2	7	Building Condition 6 - 7
Contract for Deed	0	N	No contract for deed
Homestead Status	2	2	Non-Homestead, taxpayer outside metro area
Sales Count	0	0	One or no sales in last 12 months
Tax Delinquency	0	N	No delinquency
Code Violations	4	8	Three or more code violations
Letter of Intent to Condemn	0	N	Letter of Intent to Condemn
Parcel Total Score	8 out of 14		
Parcel Risk Level	HIGH		

Neighborhood(s) Included in this Analysis

Jordan

Panel Score Risk Ranking

Low	Moderate	High	Extremely High	TOTAL
2017 (82.8%)	343 (14.1%)	33 (1.4%)	43 (1.8%)	2436 (100%)

Based on the Default Model

City of Minneapolis Property Information - General Information - Microsoft Internet Explorer

Address: [http://taxes.ci.minneapolis.mn.us/app/taxors/general\\_info/realn.asp?PR#457976](http://taxes.ci.minneapolis.mn.us/app/taxors/general_info/realn.asp?PR#457976)

### PROPERTY info

STEP 3 - General Information

Master Address: 2628 13th Ave S Minneapolis, MN PID# 35-029-24-42-0122 53907

Property Home  
 Taxpayer: Robert Varzoo  
 1641 Edwards Ave E South St Paul Mn 55075  
 Owner: Robert A Varzoo  
 Last Sale: 09/30/1996  
 Lot Size: 2,908

Step 1 -- Search  
 Search Address  
 Advanced Search  
 (By Property ID)

Step 2 -- Results  
 Address List

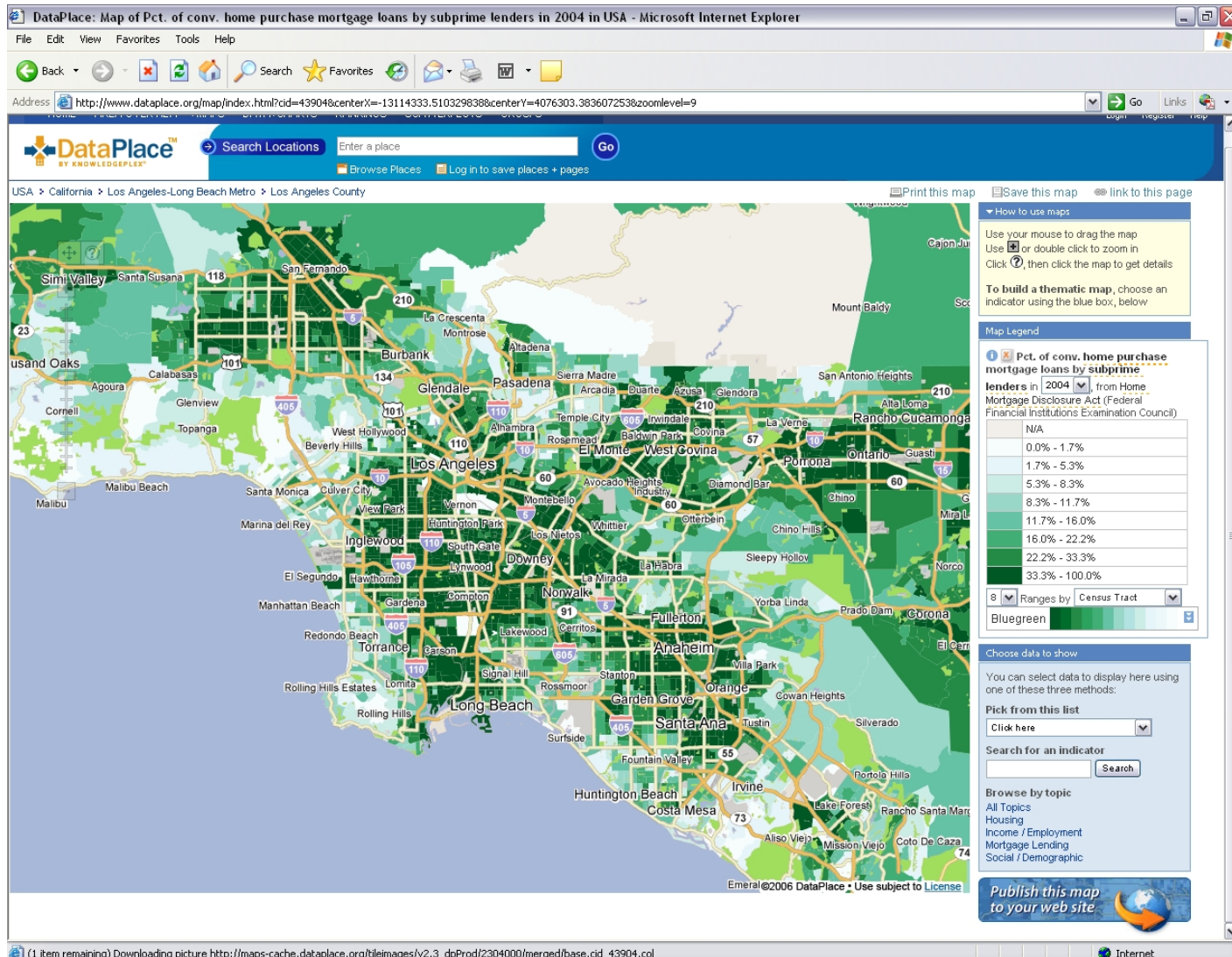
Step 3 -- Property Info  
 General Information  
 Evaluation History  
 Address Access  
 Structure Information  
 Inspection Permits

General How To  
 Secretary of Terms  
 Contact Us

Rental License Status	Registered	Homestead
Active Parcel Flags	Condemned Boarded, Ct. Build (Inv)	Date Entered 4/13/2004

PROPERTY INFO  
Property Information System 3.2.2 Rev. 10

# Internet resources: www.dataplace.org



# Internet resources: www.newyorkfed.org

Dynamic Maps of Nonprime Mortgage Conditions in the United States - Microsoft Internet Explorer

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Address <http://www.newyorkfed.org/mortgagemaps/> Go Links

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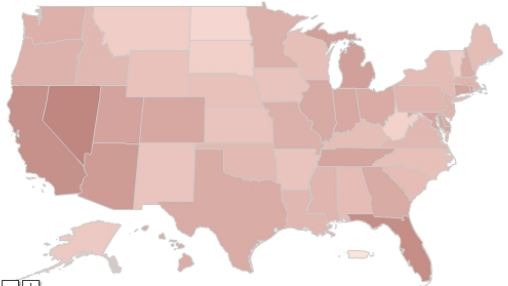
BANKING MARKETS RESEARCH EDUCATION REGIONAL OUTREACH ABOUT THE FED SEARCH

**Dynamic Maps of Nonprime Mortgage Conditions in the United States**

Zip Code:  Go  Show Cities  Show Roads Report: April 2008

Loan Type:  Subprime  Alt-A

- Loans per 1000 housing units
- In foreclosure per 1000 housing
- REOs per 1000 housing units
- Share ARMs
- Share current
- Share 90+ days delinquent
- Share in foreclosure
- Median combined LTV
- Share low FICO & high LTV
- Share low or no documentation
- Share ARMs resetting in 12 mos.
- Share late payment last 12 mos.



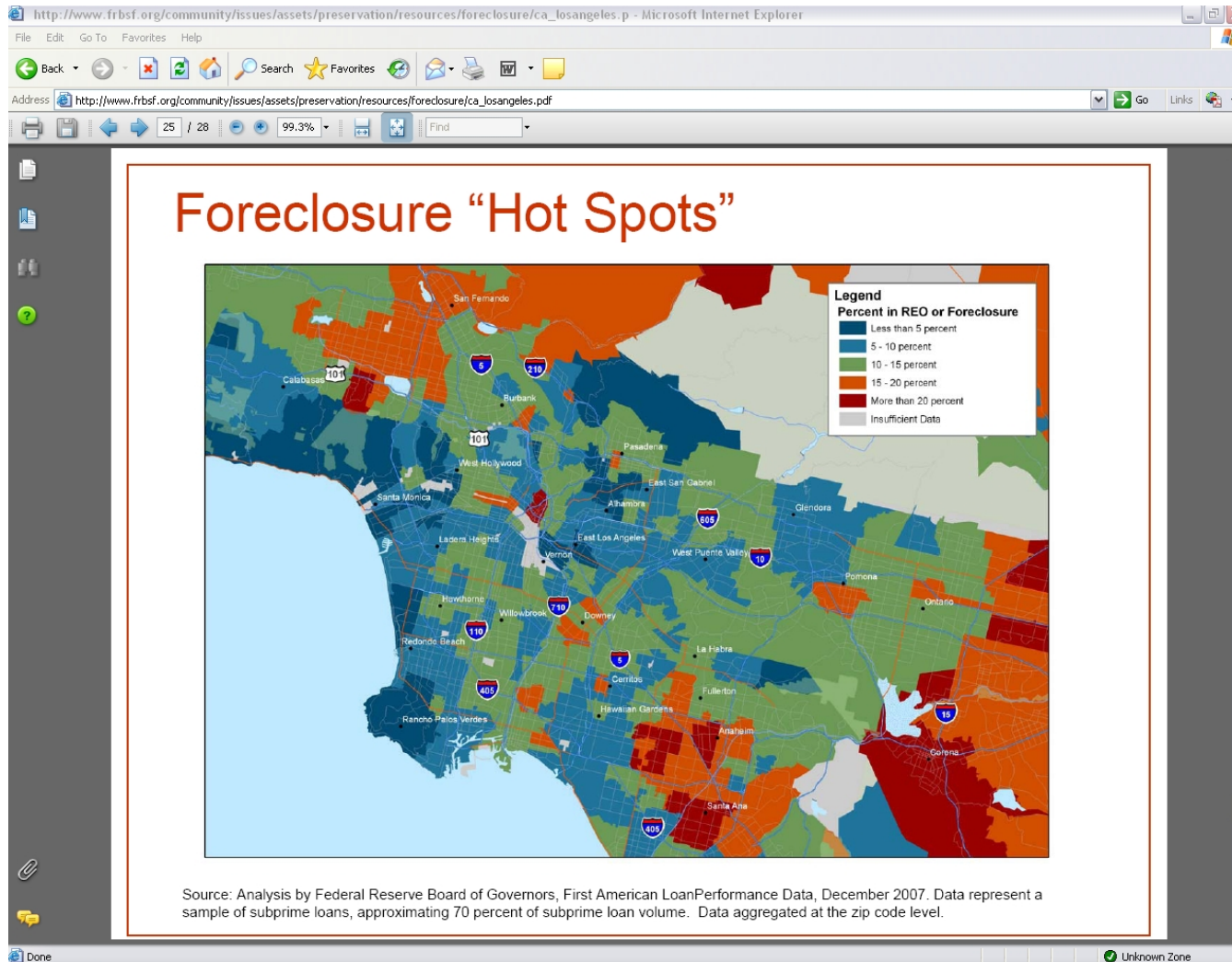
Source: FirstAmerican CoreLogic, LoanPerformance Data.  
Note: Darker shading indicates higher number, ratio or percentage.

**Technical Appendix >>**  
For supporting data see: [Nonprime Mortgage Conditions in the United States >>](#)

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Done Trusted sites

# Internet resources: [www.frbsf.org/community](http://www.frbsf.org/community)





# Summary

- Data and warning systems are an important tool to help target intervention efforts
- Data you choose to use will depend on various factors, including how you plan to mitigate foreclosure activity in your community
- Think about how you can partner with others to maximize resources and knowledge



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