Duplicate FHA Single-Family Mortgage Records and Related Problems

(PLAYING WITH MATCHES)

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DATA QUALITY AND RECORD LINKAGE TECHNIQUES

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MOTIVATION:

CLASSIC TEXTS WERE WRITTEN MANY YEARS AGO AND ARE NOW OUT-OF-PRINT

• NAUS [1975]

- DATA QUALITY CONTROL AND EDITING

• NEWCOMBE [1988]

 HANDBOOK OF RECORD LINKAGE: METHODS FOR HEALTH AND STATISTICAL STUDIES, ADMINISTRATION, AND BUSINESS

BASIC CONCEPTS

- Most techniques to improve data quality are a type of internal consistency check.
- Record linkage procedures can also be used to improve data quality as well as to enhance the usefulness of existing databases by adding new data elements or improving the completeness/accuracy of existing data elements.

APPLICATION

ENHANCED VERSION OF CASE STUDY OF FHA-INSURED SINGLE-FAMILY MORTGAGE RECORDS (Chapter 14)

ABOUT FHA

- FHA insures mortgages against the risk of foreclosure (i.e., that the borrower(s) will be unable/unwilling to continuing making payments to his/her/their mortgage).
- FHA has insured over 34 million singlefamily mortgages since its inception in 1934.

Numbering Scheme for FHA Case Numbers

• SSO-NNNNNNC

- -SS = State Code
- -O = Office Code within State
- NNNNNN = Serial Portion of Case Number
- -C = Check Digit (to prevent typographical error)

Examples	of FHA	Case	Number
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• 411-1451573

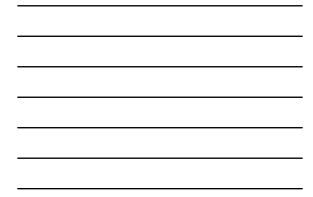
- 41 = Ohio
- 411 = Cincinnati Office within Ohio
- 145157 = Serial Portion of Case Number
- -3 = Check Digit
- 541-2760279
 - -54 = Virginia
 - -541 = Richmond
 - -276027 = Serial Portion of Case Number
 - -9 =Check Digit

FHA CASE RECORD FAILING INTERNAL CONSISTENCY CHECK					
FHA CASE NUMBER	STREET ADDRESS	CITY	STATE	ZIP CODE	NAME(S) OF BORROWER
441- 1451573	714 GRAND AVENUE	CINCIN- NATI	РА	45232	HOLLINS, LARRY & JUANITA



FHA CASE RECORD FAILING INTERNAL CONSISTENCY CHECK

STREET ADDRESS	CITY	STATE	ZIP CODE	NAME(S) OF BORROWER
714	CINCIN-	PA	45232	HOLLINS,
GRAND	NATI			LARRY
AVENUE				&
		OH		JUANITA
	ADDRESS 714 GRAND	ADDRESS 714 CINCIN- GRAND NATI	ADDRESS 714 CINCIN- GRAND NATI AVENUE	ADDRESS CODE 714 CINCIN- GRAND NATI AVENUE



FHA CASE RECORD FAILING INTERNAL CONSISTENCY CHECK						
FHA CASE	STREET	CITY	STATE	ZIP	NAME(S)	
NUMBER	ADDRESS			CODE	OF BORROWER	
441- 2760279	1309 BROAD STREET	RICH- MOND	PA	23231	BROWN, ROBERT	



FHA CASE RECORD FAILING INTERNAL CONSISTENCY CHECK

FHA CASE	STREET	CITY	STATE	ZIP	NAME(S)
NUMBER	ADDRESS			CODE	OF
					BORROWER
441-	1309	RICH-	PA	23231	BROWN,
2760279	BROAD	MOND			ROBERT
	STREET				
541-			VA		
2760279					
		1		1	

FHA Case Number	Initial Loan Amount	Begin Amortization Date	Contract Interest Rate	Name(s) of Borrower
131-5132066	\$70,100	Aug-1987	10.5%	Copp, Jeffrey S.
131-5132095	\$47,750	Oct-1987	11.0%	Budge, Robert W.
131-5132116	\$76,500	Aug-1987	10.5%	Woods, Sherrie D.
131-5132151	\$68,800	Jun-1984	14.5%	O'Hara Tom L Kim A
131-5132180	\$47,600	Aug-1987	10.5%	Epps, Sherri A.
131-5132197	\$43,250	Oct-1987	10.5%	Hollins, Richard M.



FHA CASE RECORDS FAILING RANGE TEST					
FHA Case Begin Contract Name(s) of Borrow					
Number	Amortization Date	Interest Rate			
372-0101064	Dec-1979	11.5%	Spruce, Ronald H		
372-0113867	Apr-1983	12.0%	Stewart, P D Q		
372-0116726	June-1983	12.0%	Landrieu W J		
372-0707605	Jan-1975	9.0%	Richardson B F L		
372-0707736	Jan-1975	9.5%	Bowers Newton P		
372-0708494	Jan-1975	9.0%	McDonald K L		

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Duplicate FHA Case Records						
FHA Case Number	Property Address	Initial Loan Amount	Closing Date Of Loan	Contract Interest Rate	Name(s) of Borrower	
372- 1132617	109 Elm St Bethany, NY 14054	\$32,000	Feb-1983	12.5%	Brown John N	
374- 1132613	109 Elm St Bethany, NY 14054	\$32,000	Feb-1983	12.5%	Brown JR	

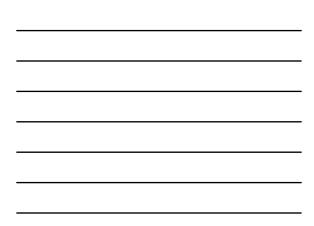
FHA Case Records with Incorrect Termination Status						
FHA Case Number	Property Address	Closing Date of Loan	Status of Loan	Contract Interest Rate	Name(s) of Borrower	
371- 1019310	109-07 211 th Place Queens Village, NY 11429	Mar- 1982	Active	16.5%	Smith John Paulette	
374- 4413730 109-07 211th Place Queens Village, NY 11429 Sep- 2004 Active 5.5% Smith, Paulette						



FHA Case Records with Incorrect Termination Status						
FHA	Property	Closing	Status	Contract	Name(s) of	
Case Number	Address	Date	of Loan	Interest Rate	Borrower	
372-	323 Oak St	Apr-1984	Active	13%	J. & K. Falkides	
1221854	Buffalo,NY					
	14215					
372-	323 Oak St	Jan-1987	Prepaid	9%	Falkides, John P	
519223	Buffalo,NY					
	14215					



FHA Case Records with Incorrect Termination Status					
FHA Case Number	Property Address	Closing Date	Status of Loan	Contract Interest Rate	Name(s) of Borrower
131- 5109339	14104 RTE 1750 Coal Valley, IL 61240	Oct- 1986	Active	9.0%	Angel, Dale J
131- 7200510	14104 RTE 1750 Coal Valley, IL 61240	Jul- 1994	Claim	7.5%	Angel, Dale I



Ginnie Mae

- Ginnie Mae = Government National Mortgage Assn.
- Ginnie Mae is a wholly-owned govt. corp.
- Ginnie Mae is a component of HUD
- Ginnie Mae's role is to guarantee the timely payment of principal and interest to owners of Ginnie Mae residential mortgage-backed securities (MBS) initially pooled by the lenders.

Linking FHA & Ginnie Mae Records

- This was feasible because both databases had a field with the FHA Case Number.
- So exact matching could be performed via the FHA case number.

Why Link FHA & Ginnie Mae Records?

- To correct termination status field within records on FHA's single-family data warehouse. If Ginnie Mae showed that mortgage was "terminated", why did FHA show it was still "active"?
- FHA's single-family data warehouse had 25,000 "active" case records without a property address. By linking we were able to use Ginnie Mae database to obtain about 5,000 such addresses.

THANK YOU!!!