

Neighborhood Impact of Mortgage Assistance Program in Dallas

Wenhua Di

Federal Reserve Bank of Dallas

Jielai Ma, James Murdoch

University of Texas at Dallas

May 15, 2009

The views expressed in the paper are those of the authors and do not necessarily represent the views of the Federal Reserve Bank of Dallas or the Federal Reserve System.

Research Method and Results

Program evaluated

Mortgage Assistance Program (MAP) in the City of Dallas

A sample of 5,500 MAP participants from 1991 to 2006

Method

Examining changes in neighboring property values with a hedonic price model

Results

The infusion of MAP has no detrimental impact on neighboring property values overall.

An Overview of Dallas MAP

Regulatory background

Funding sources

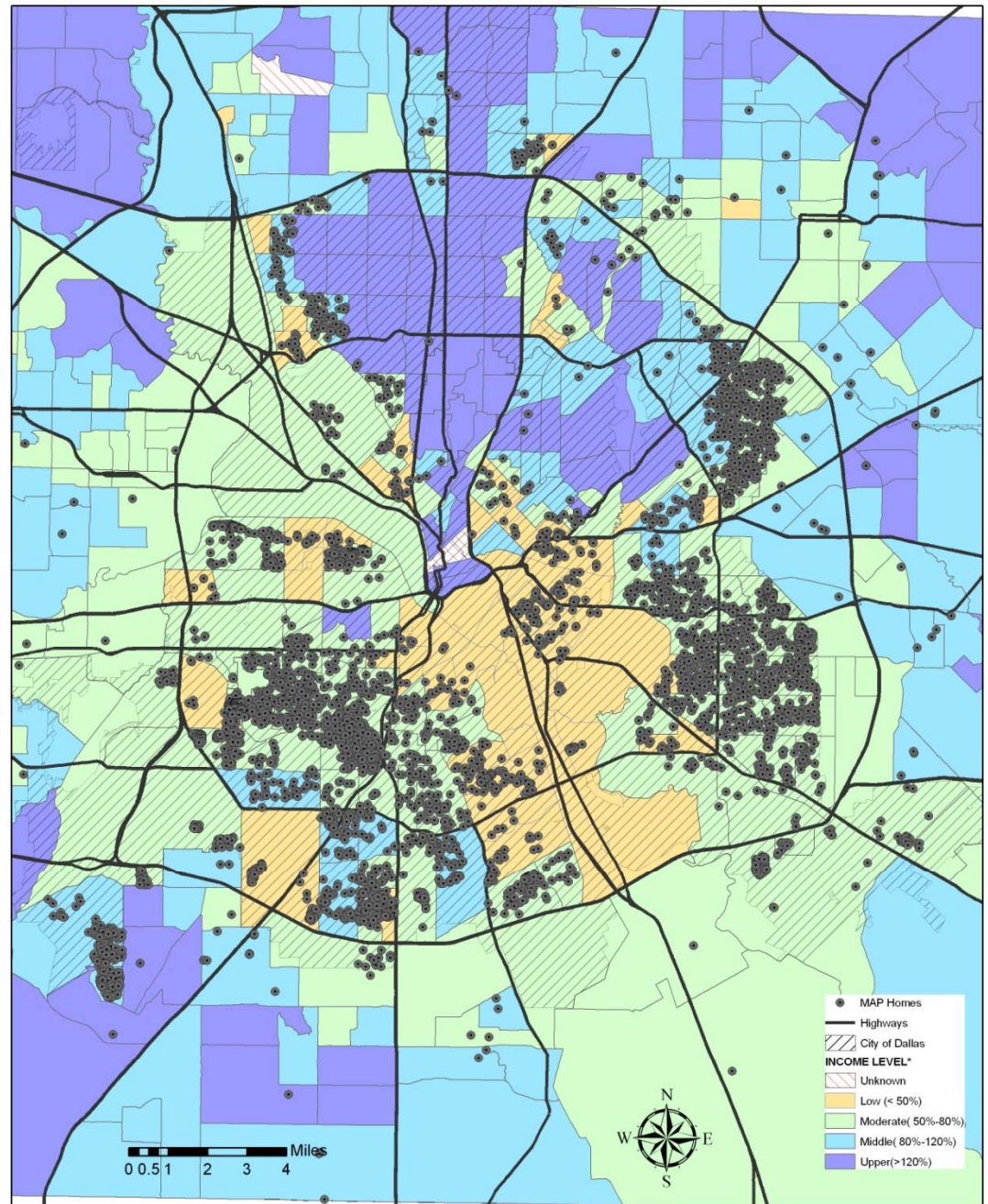
Mainly HUD block grants through three programs—HOME Investment Partnerships Program, Community Development Block Grant Program and American Dream Downpayment Initiative

Dallas MAP outcome

- I. MAP contributes to creating homeownership for low and moderate- income (LMI) and minorities.
- II. MAP participants have lower financial burden than local averages of LMI households.
- III. MAP participants have lower mortgage delinquency and foreclosure rates than subprime loan borrowers in Texas.

Distribution of MAP Properties by Income level

85% of the geocoded properties are located in HUD LMI census tracts. All MAP participants earn low-to moderate- income. Between 1997 and 2006, 47% make below 50% of area median income (AMI). 97% are minorities.



Impact of MAP on Neighboring Property Values

Housing price
= F(structure of the house, location, time of the sale, etc.)

Age, living area,
number of bedrooms,
number of baths,
fireplace, pool,
maintenance level

Neighborhood
amenities,
proximity to MAP
properties

Year, quarter,
before or after
the occupancy of
nearby MAP
properties

Data source:

MAP database and Dallas home sales (MLS)

Identification Issues in Comparing Neighboring Home sales

- Confine the analysis to non-MAP sales in 485 block groups with MAP properties
- Define treatment neighborhoods (TN) and comparison neighborhoods (CN) by distance to each MAP property
- Compare sale prices in TN and CN before and after MAP sales with a difference-in-difference (DID) approach
- Vary neighborhood ring sizes and levels of MAP concentrations
- Address correlation among neighborhood sales with a spatial error model

Key Variables and Interpretation

Variables	Interpretation of estimation results	
	Home sold at higher price	Home sold at lower price
MAP nearby <i>(MAP)</i>	MAP homes tend to locate in higher price neighborhoods	MAP homes tend to locate in lower price neighborhoods
Sold after nearby MAP sale <i>(POSTMAP)</i>	MAP homes have positive spillover effects on neighborhood property values	MAP homes have negative spillover effects on neighborhood property values

Spatial Error Model Results

	Housing prices
	Treatment within 1000 feet ring
MAP nearby (<i>MAP</i>)	-24.7%**
Sold after nearby MAP sale (<i>POSTMAP</i>)	1.3%**

** significant at 1 percent

Spatial Error Model Results

	Housing prices	
	Treatment within 1000 feet ring	Treatment within 500 feet ring
MAP nearby (<i>MAP</i>)	-24.7%**	-9.8%**
Sold after nearby MAP sale (<i>POSTMAP</i>)	1.3%**	-0.3%

** significant at 1 percent

Results for various levels of treatment with MAP within 1000 feet ring	Housing Prices
<i>MAP_1only</i>	-24.5%**
<i>POST1MAP</i>	2.0%**
<i>MAP_2only</i>	-23.0%**
<i>POST2MAP</i>	0.2%
<i>MAP_3or4</i>	-21.6%**
<i>POST3or4MAP</i>	1.3%
<i>MAP_5to9</i>	-22.4%**
<i>POST5to9MAP</i>	-2.2%*
<i>MAP10+</i>	-23.7%**
<i>POST10+MAP</i>	-5.5%**

* significant at 5 percent; ** significant at 1 percent

Results for various levels of treatment with MAP within 500 feet ring	Housing Prices
<i>MAP_1only</i>	-9.7%**
<i>POST1MAP</i>	0.7%
<i>MAP_2only</i>	-8.3%**
<i>POST2MAP</i>	-1.8%
<i>MAP_3or4</i>	-9.3%**
<i>POST3or4MAP</i>	-2.1%
<i>MAP_5to9</i>	-9.3%**
<i>POST5to9MAP</i>	-7.9%*
<i>MAP10+</i>	-12.3%**
<i>POST10+MAP</i>	-11.9%**

* significant at 5 percent; ** significant at 1 percent

Conclusions

- MAP properties tend to locate in lower price neighborhoods.
- The existence of MAP participants has no depressing effects on the value of neighboring properties overall.
- Proximity to a few MAP properties may contribute to the appreciation of neighboring homes, but proximity to clusters of MAP properties may adversely affect the property values.

MAP remains a reasonable public policy option for increasing and sustaining homeownership for lower-income population; however, future studies and more data collection are needed to understand the externalities generated from high concentrations of subsidized homeowners.