



# Measuring the Impact of Clustered Housing Investment under the Federal Neighborhood Stabilization Program



**TRE** THE REINVESTMENT FUND  
Capital at the point of impact.

The Reinvestment Fund (TRF), under contract with the U.S. Department of Housing and Urban Development (HUD), generates data on NSP investments across the country based on program data supplied to HUD by NSP grantees. Those data and accompanying analytic tables and maps are made available to the public on a quarterly basis. The purpose of the analyses and accompanying deliverables is for HUD to provide a tool to grantees that will assist in the implementation of grantees' local programs. Quarterly interactive maps, tables and reports may be found at HUD's Neighborhood Stabilization Resource Exchange (<https://hudnsphelp.info/index.cfm?do=viewNICReportsHome>).

This research is conducted using those data, with the permission of HUD. We appreciate their consent to use the data for this public purpose.

- Create a methodology for identifying clusters of NSP investment;
- Establish a methodology (a quasi-experimental design) for understanding whether clustered NSP investments changed the trajectory of the markets within which investments were made;
- Provide information (tables, maps and reports) upon which HUD grantees can rely to examine impact of NSP investments;
- Describe the spatial distribution of clustered investments, and performance, nationally;
- Examine the conditions associated with better outcomes.

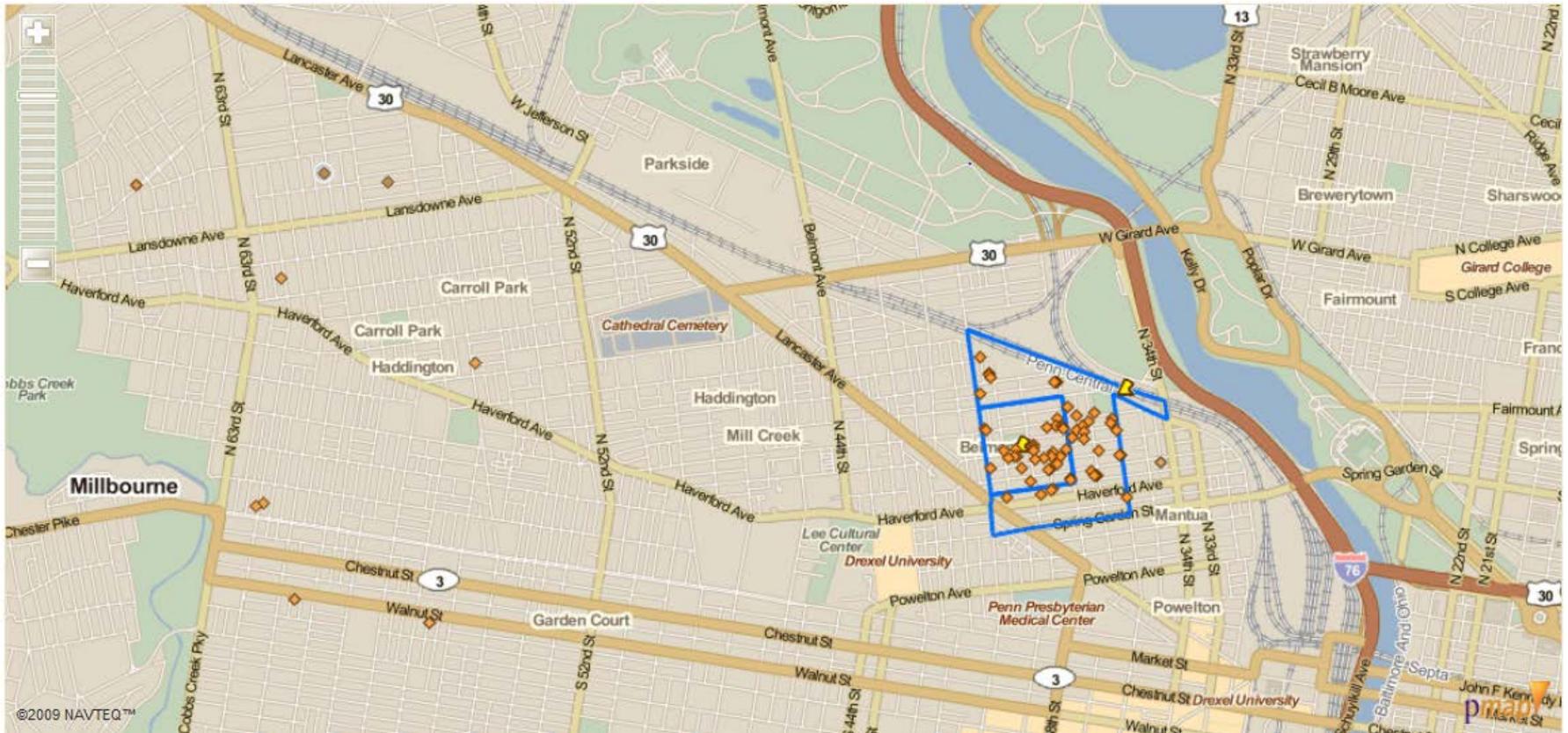
### **Step One: Identify and map NSP properties.**

- TRF last received a file on November 27, 2012 of 71,556 records of NSP investment across the country. Elimination of duplicate properties from the database and properties for which the expenditures were categorized as: (a) admin; (b) capacity building; (c) planning left 48,846 unique properties treated by NSP. Properties were mapped to their address.

### **Step Two: Identify clusters of NSP properties.**

- Spatially identified clusters – places where at least 6 NSP properties were within  $\frac{1}{4}$  mile of each other.
- Selected all of the block groups with this density and grouped them to create clusters.
- Any cluster that was larger than 4 block groups or crossed county boundaries, was broken up into one or more clusters.
- We named these clusters *NSP Investment Clusters* or *NICs*.

# Methodology and Process



### **Step Three: Identify three comparable markets for each cluster.**

Comparable markets were defined to be block groups that were at least .125 miles away from any cluster AND had similar:

- median home sale prices in 2008;
- home sale price change between 2006 and 2008;
- homeownership rate;
- NSP 1 Estimated Risk Score
- count of housing units (NIC average per block group).

[Note: In the definition of comparable areas, scoring penalized areas at increasing distance from the NIC and if those areas had NSP investments. Comparable areas could be outside of the NIC county but the block group of that comparable area must have touched the NIC county's boundary.]

# Methodology and Process



Department of Housing and Urban Development:  
NSP Neighborhood Change Report  
As of September 30th 2012



## Philadelphia County PA NIC 2

Grantees	Philadelphia, PA (41)	Home Sale Performance Score	A	Vacancy Performance Score	A
Dominant Allocation of NSP Investment	100% NSP2	See Endnotes for an explanation of the performance scoring system.			
Total Properties Treated	41				
Clearance and Demolition	28				
Rehab	13				



City, Zip Code	Philadelphia, 19104	Philadelphia, 19139	Philadelphia, 19139	Philadelphia, 19131
Distance from NIC		1.53 miles	1.32 miles	1.31 miles

### Area Statistics

	Philadelphia, 19104	Philadelphia, 19139	Philadelphia, 19139	Philadelphia, 19131
NSP 1 Score	10	10	10	10
Median Home Sale Price (2008)	\$37,805	\$32,000	\$32,500	\$31,000
Home Appreciation (2006-08)	41.46%	60%	21.5%	72.22%
Owner Occupancy Rate (2010)	30.5%	26.1%	41.5%	25.9%
Number of NSP Investments	41	0	0	0

Source: TRF calculations of data from HUD, Boxwood Means home sales, and Census 2010 data on owner occupancy.

### Home Sale Statistics

Median Home Sale Price	Philadelphia, 19104	Philadelphia, 19139	Philadelphia, 19139	Philadelphia, 19131
2008	\$37,805	\$32,000	\$32,500	\$31,000
2009	\$46,966	\$20,000	\$24,750	N/A
2010	\$35,590	\$19,313	\$18,000	\$24,250
2011	\$40,064	\$19,250	\$22,000	\$23,630
Home Sale Appreciation				
2008-2009 (A)*	24.23%	-37.5%	-23.85%	N/A
2009-2010 (A)*	-24.22%	N/A	-27.27%	N/A
2010-2011 (B)*	12.57%	N/A	22.22%	-2.56%
2008-2011 (A)*	5.97%	N/A	-32.31%	-23.77%
Number of Home Sales				
2008	37	13	20	5
2009	29	5	14	0
2010	21	2	5	6
2011	22	4	5	8

Source: TRF calculations of home sale data provided by Boxwood Means, Inc.

\* See endnotes for an explanation of performance scoring system

### Residential Vacancy Statistics

	Philadelphia, 19104	Philadelphia, 19139	Philadelphia, 19139	Philadelphia, 19131
2008 January-June	14.89%	8.99%	8.99%	4.2%
2009 January-June	13.22%	8.16%	8.16%	4.51%
2010 January-June	14.47%	8.78%	8.78%	5.13%
2011 January-June	13.38%	9.31%	9.31%	6.63%
2012 January-June	11.74%	9.67%	9.67%	6.33%
Change 08-09 (A)*	-11.23%	-9.19%	-9.19%	7.4%



# Methodology and Process

Map of Philadelphia County PA NIC 2 and Comparables



### **Step Four:** Score how NICs performed against comparable markets.

- Compared performance of each NIC to its comparables along two indicators: median home sale price change and vacancy rate change.
- Assigned a letter grade (A through D) to indicate how the market within the NIC performed compared to its comparable markets.

# Methodology and Process

## Performance Scoring

- “A” a NIC beat all of its comparable markets for which there was home sale or vacancy data.
- “B” a NIC beat some of its comparable markets for which there was home sale or vacancy data.
- “C” a NIC beat one of its comparable markets for which there was home sale or vacancy data.
- “D” a NIC beat none of its comparable markets for which there was home sale or vacancy data.
- “N/A” there was not sufficient data for any comparable in order to calculate a Performance Score.

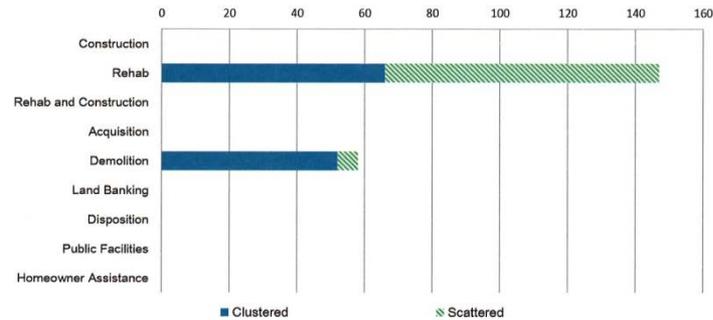
# Quarterly HUD Grantee NIC Report



Grantee Report: Philadelphia, PA  
Cumulative As Of September 30th, 2012

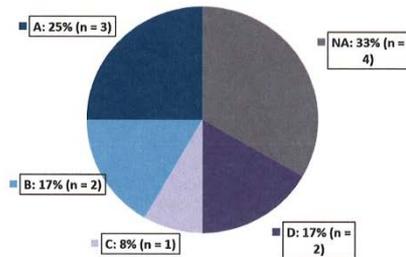
## Summary of NSP Activity: Number of Properties Treated

Activity Type	Clustered	Scattered	Total
Construction	0	0	0
Rehab	66	81	147
Rehab and Construction	0	0	0
Acquisition	0	0	0
Demolition	52	6	58
Land Banking	0	0	0
Disposition	0	0	0
Public Facilities	0	0	0
Homeowner Assistance	0	0	0
<b>Total:</b>	<b>118</b>	<b>87</b>	<b>205</b>

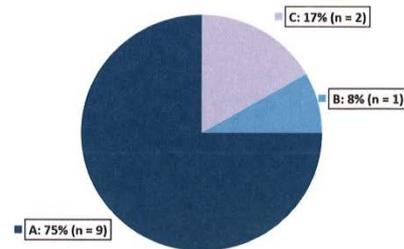


## Performance of NSP Investment Clusters (NICs):

### Distribution of NICs Sale Price Grade



### Distribution of NICs Vacancy Grade



# Summary Results

- As of November 27, 2012, 48,846 unique (unduplicated) properties have been treated under the NSP program across the nation.
- 27,238 or 56% of these properties are located within a cluster of NSP investments. The remaining 44% are scattered investments and were not a part of this analysis.
  - 53% of NSP-1 properties are clustered in NICs
  - 75% of NSP-2 properties are clustered in NICs
- 1,914 clusters of investment NICs exist around the nation.
- Most NICs are dominated by the following activity types: Clearance (48.6% of NICs), Rehab (20.9%), Land Banking/Acquisition (5.0%) and General Acquisition (6.9%).

## Performance Summary

- Home Sales: 72.9% of all NICs trended better than at least one of their comparable markets when it came to home sale price change between 2008 and 2011. *25.8% ("A"s) beat every comparable against which they were studied.*
- Vacancy: 75.2% of all NICs trended better than at least one of their comparable markets when it came to vacancy rate change between the first half of 2008 and the first half of 2012. *24.8% ("A"s) beat every comparable against which they were studied.*

# Distribution of NICs by State

State	Number of NICs	Percent of NICs	State	Number of NICs	Percent of NICs
OH	568	29.3	OK	10	.5
MI	350	18.0	MS	9	.5
FL	116	6.0	NJ	9	.5
IN	112	5.8	SD	8	.4
CA	75	3.9	AR	6	.3
WI	69	3.6	CT	6	.3
MN	58	3.0	DC	6	.3
PA	57	2.9	OR	6	.3
GA	44	2.3	RI	6	.3
AZ	39	2.0	AL	5	.3
MA	38	2.0	LA	5	.3
IL	36	1.9	VA	5	.3
SC	31	1.6	ND	4	.2
MD	28	1.4	NH	4	.2
NV	28	1.4	VT	4	.2
TX	28	1.4	WV	4	.2
TN	25	1.3	KS	3	.2
NY	24	1.2	WA	3	.2
NC	23	1.2	AK	2	.1
MO	19	1.0	ID	2	.1
IA	14	.7	MT	2	.1
KY	13	.7	NM	2	.1
CO	11	.6	HI	1	.1
NE	11	.6	ME	1	.1
DE	10	.5	UT	1	.1

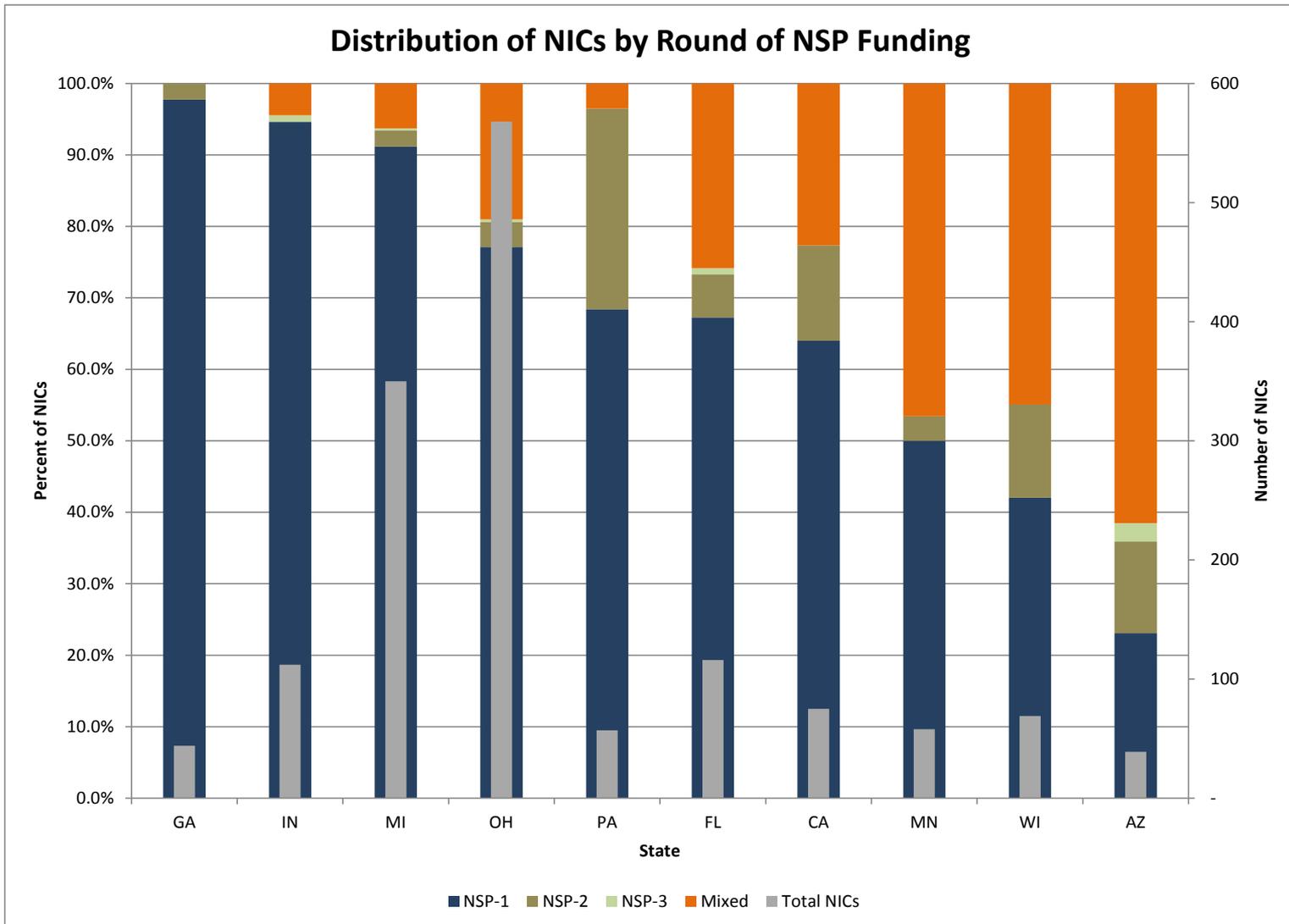
# Distribution of NSP Investments by State

State	Total NSP Investments	Mean Number per NIC	Median Number per NIC	State	Total NSP Investments	Mean Number per NIC	Median Number per NIC
OH	8440	14.86	10.00	OK	113	11.30	12.50
MI	3762	10.75	8.00	MO	95	5.00	5.00
FL	1813	15.63	10.00	NJ	95	10.56	8.00
IN	1797	16.04	9.50	WV	78	19.50	19.00
AZ	1340	34.36	9.00	ND	77	19.25	10.50
CA	1036	13.81	7.00	MT	76	38.00	38.00
TX	864	30.86	18.00	OR	74	12.33	9.00
GA	749	17.02	11.50	DC	73	12.17	6.50
MN	591	10.19	9.50	VT	71	17.75	16.50
IL	570	15.83	7.00	DE	68	6.80	6.50
PA	556	9.75	7.00	AL	57	11.40	10.00
NC	486	21.13	15.00	SD	53	6.63	6.00
TN	484	19.36	10.00	ID	52	26.00	26.00
NV	440	15.71	9.00	LA	52	10.40	13.00
WI	424	6.14	4.00	NH	50	12.50	8.50
SC	417	13.45	10.00	UT	42	42.00	42.00
MA	399	10.50	6.50	CT	40	6.67	6.50
CO	391	35.55	13.00	RI	37	6.17	5.50
NY	297	12.38	6.00	NM	30	15.00	15.00
MD	255	9.11	8.00	VA	30	6.00	6.00
IA	174	12.43	12.00	WA	29	9.67	9.00
MS	164	18.22	14.00	AK	26	13.00	13.00
NE	158	14.36	14.00	HI	20	20.00	20.00
KY	154	11.85	6.00	KS	18	6.00	6.00
AR	117	19.50	11.00	ME	4	4.00	4.00

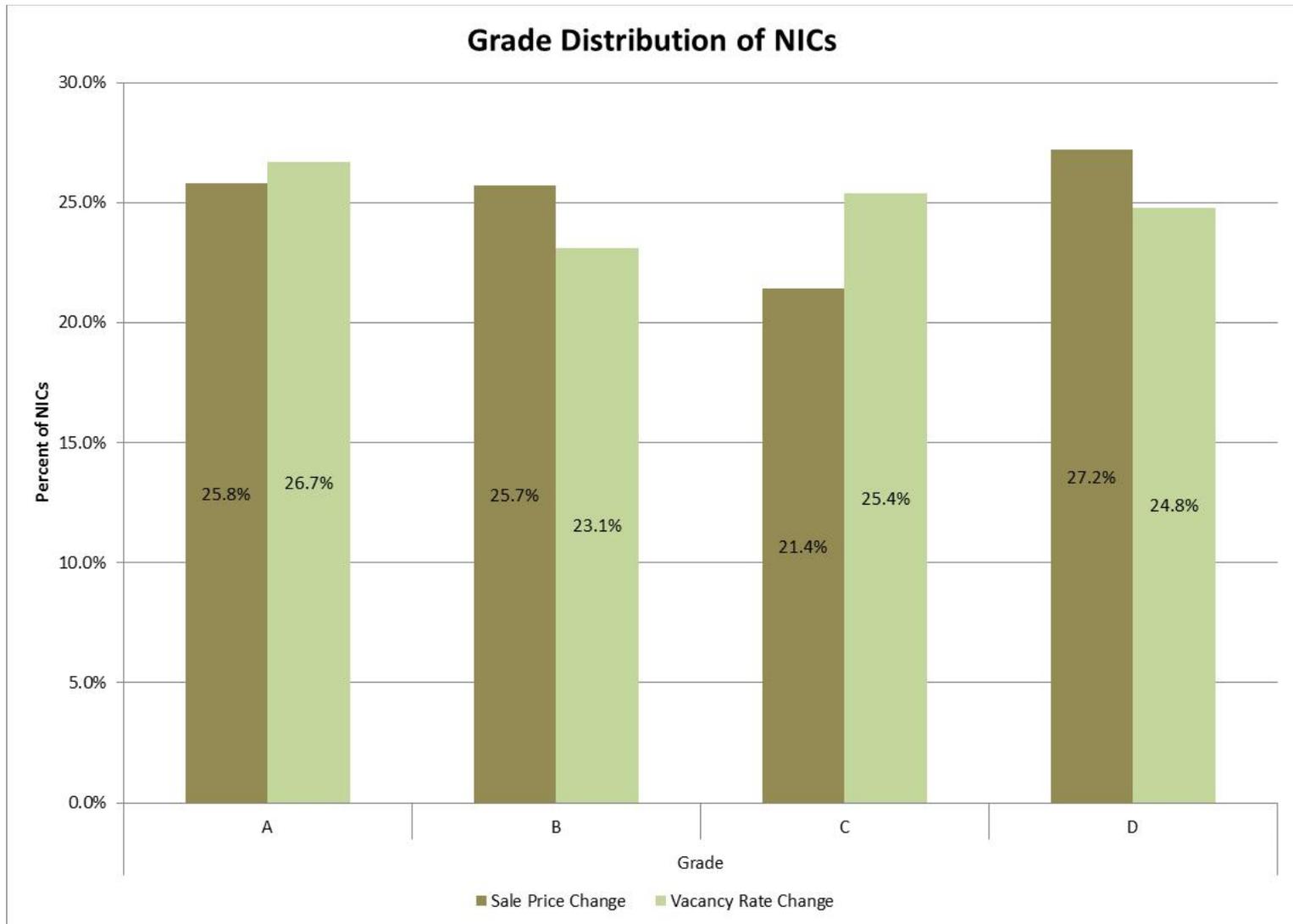
# Distribution of NSP Investments by County (Top 10)

County	Investments	NICs	Mean Number per NIC	Main/Largest City
Cuyahoga, OH	2999	187	16.0	Cleveland
Wayne, MI	2354	228	10.3	Detroit
Maricopa, AZ	982	23	42.7	Phoenix
Mahoning, OH	865	42	20.6	Youngstown
Marion, IN	842	47	17.9	Indianapolis
Montgomery, OH	796	55	14.5	Dayton
Trumbull, OH	565	28	20.2	Warren
Genesee, MI	544	29	18.8	Flint
Stark, OH	427	19	22.5	Canton
Hamilton, OH	386	39	9.9	Cincinnati
Hennepin, MN	385	38	10.1	Minneapolis

# Distribution of NSP Investments by State and Funding Round



# Grade Distribution of NICs

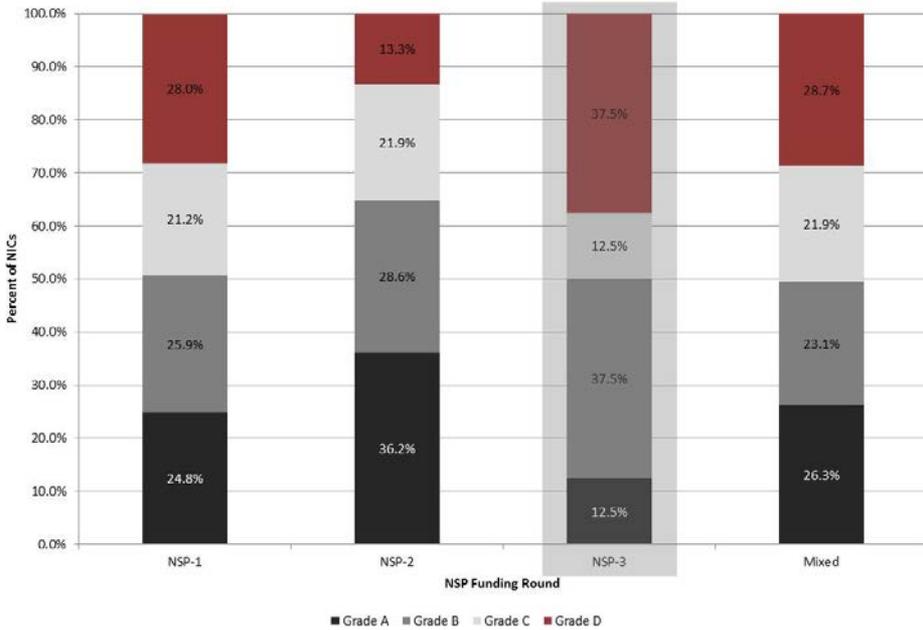




# **Selected Results for Home Sale Price Comparisons**

# Grade Distribution by Initial Characteristics

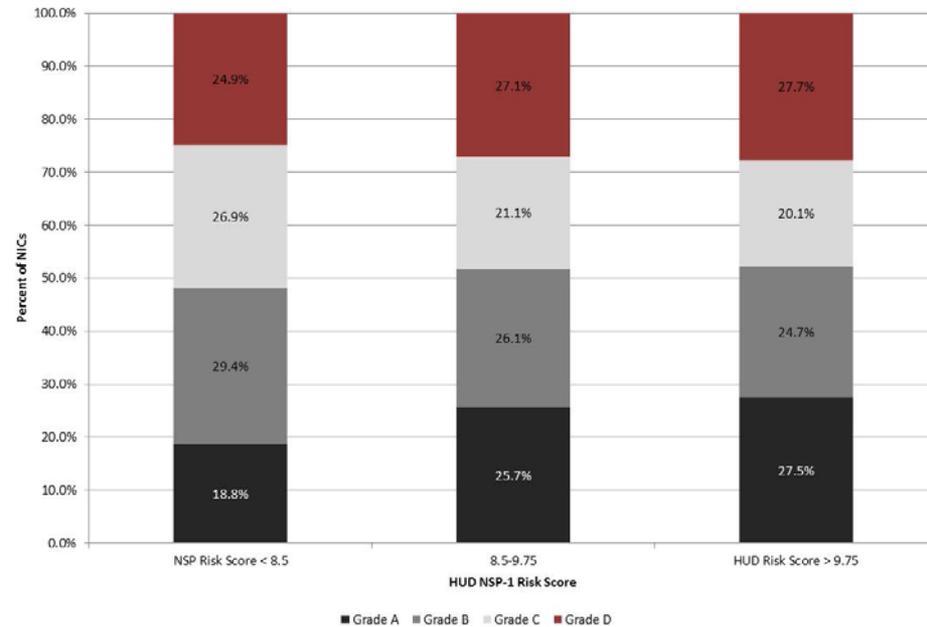
Grade Distribution by NSP Funding Round



Home sale price comparisons were somewhat better in NICs that started out with higher HUD NSP Risk Scores.

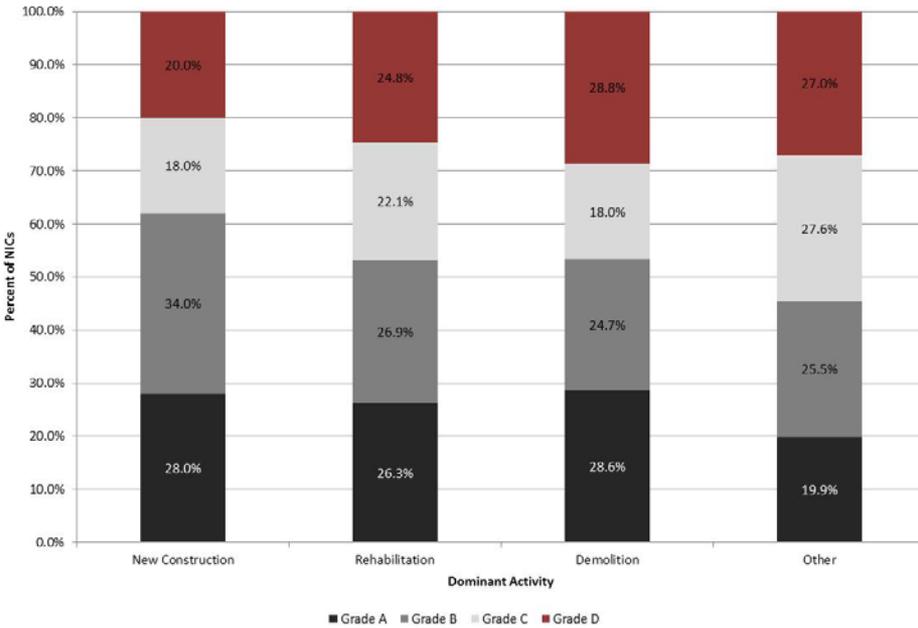
Home sale price comparisons were better in NICs dominated by NSP-2 funding.

Grade Distribution by HUD NSP-1 Risk Score



# Grade Distribution by Dominant and Level of Activity

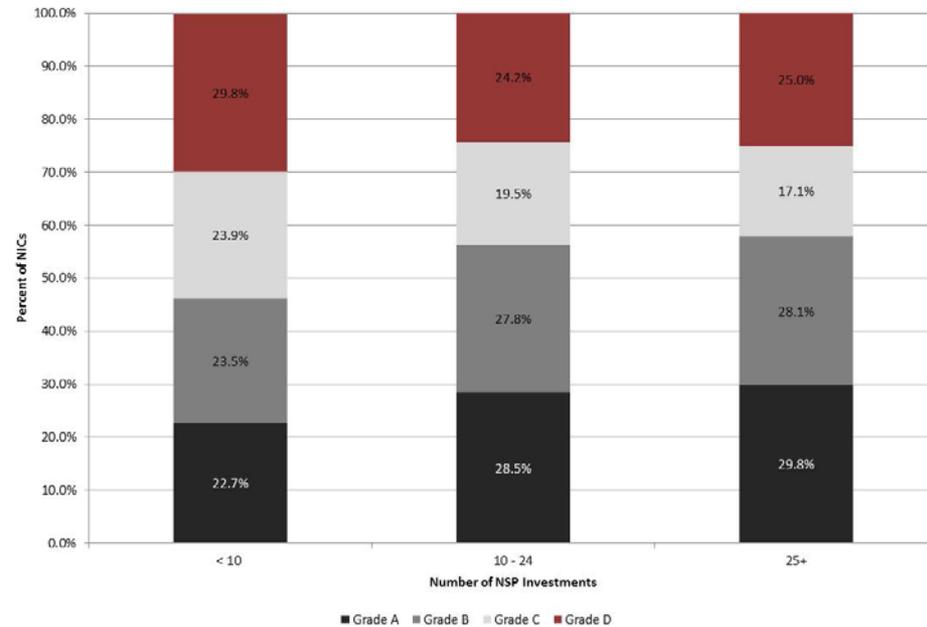
Grade Distribution by Dominant NSP Activity



Home sale price comparisons were somewhat better in NICs dominated by new construction.

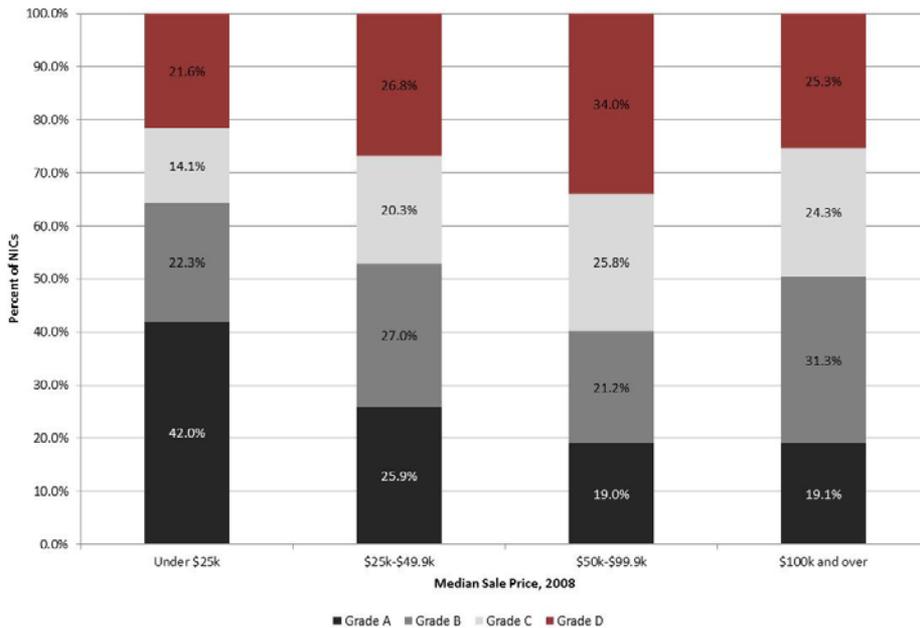
Home sale price comparisons were slightly better in NICs that had higher numbers of investments.

Grade Distribution by Number of NSP Investments per NIC



# Grade Distribution by Price and Price Change

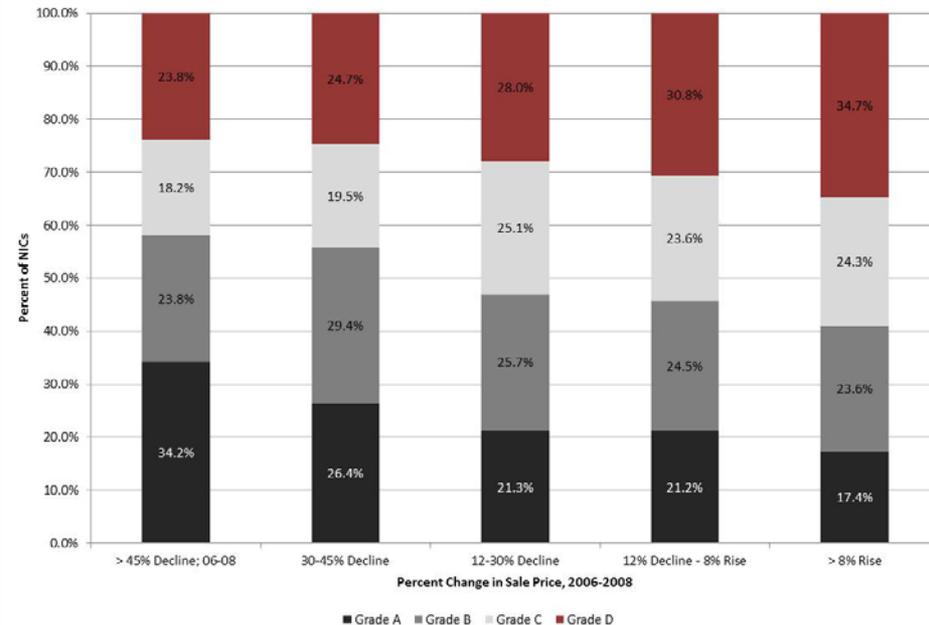
Grade Distribution by Median Sale Price, 2008



Home sale price comparisons were better in NICs that experienced more substantial decline prior to NSP.

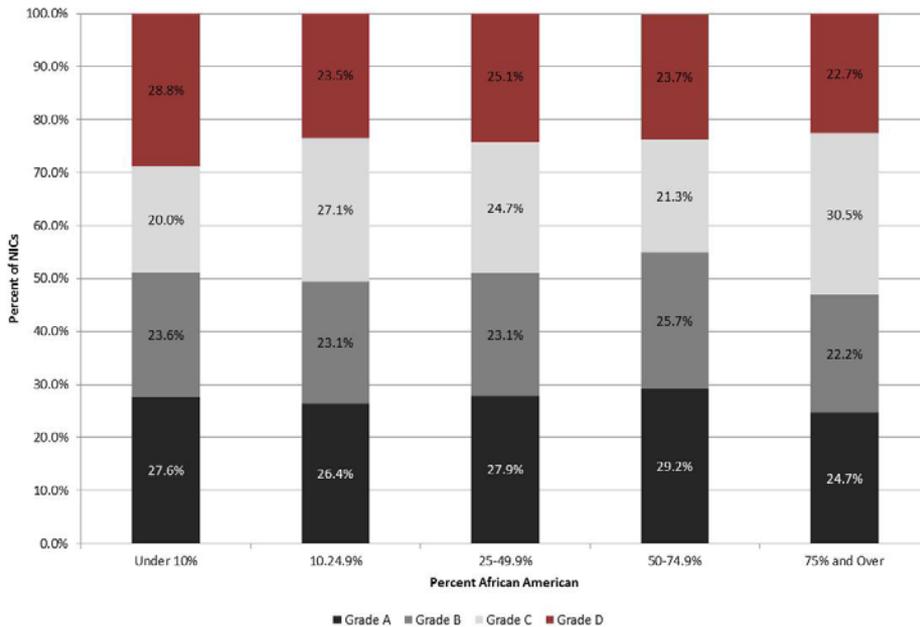
Home sale price comparisons were somewhat better in NICs where there were higher concentrations of lower income households.

Grade Distribution by Price Change, 2006-2008



# Grade Distributions of NICs by Area Demography

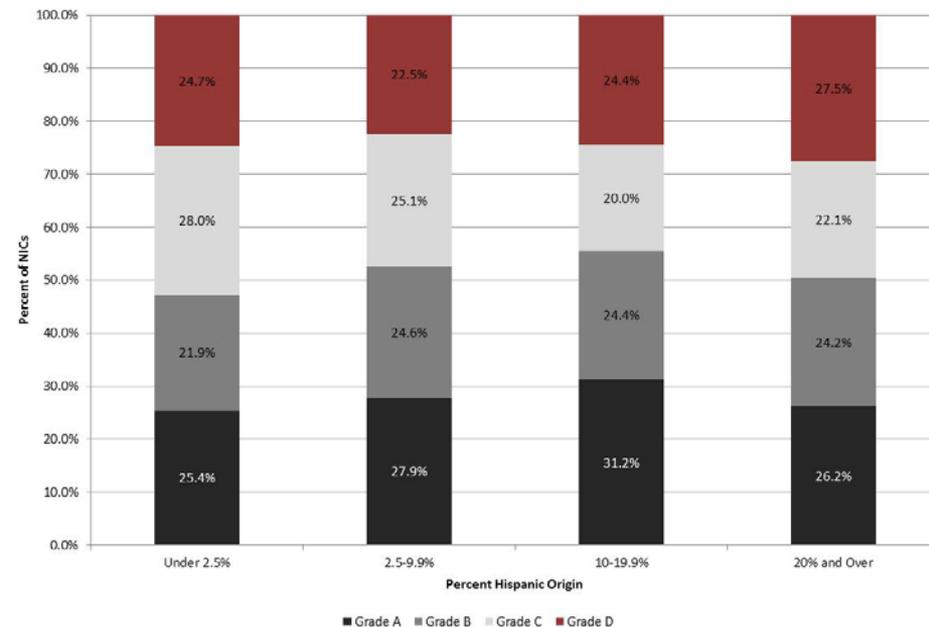
Grade Distribution by Percent African American, 2005-2009 (ACS)



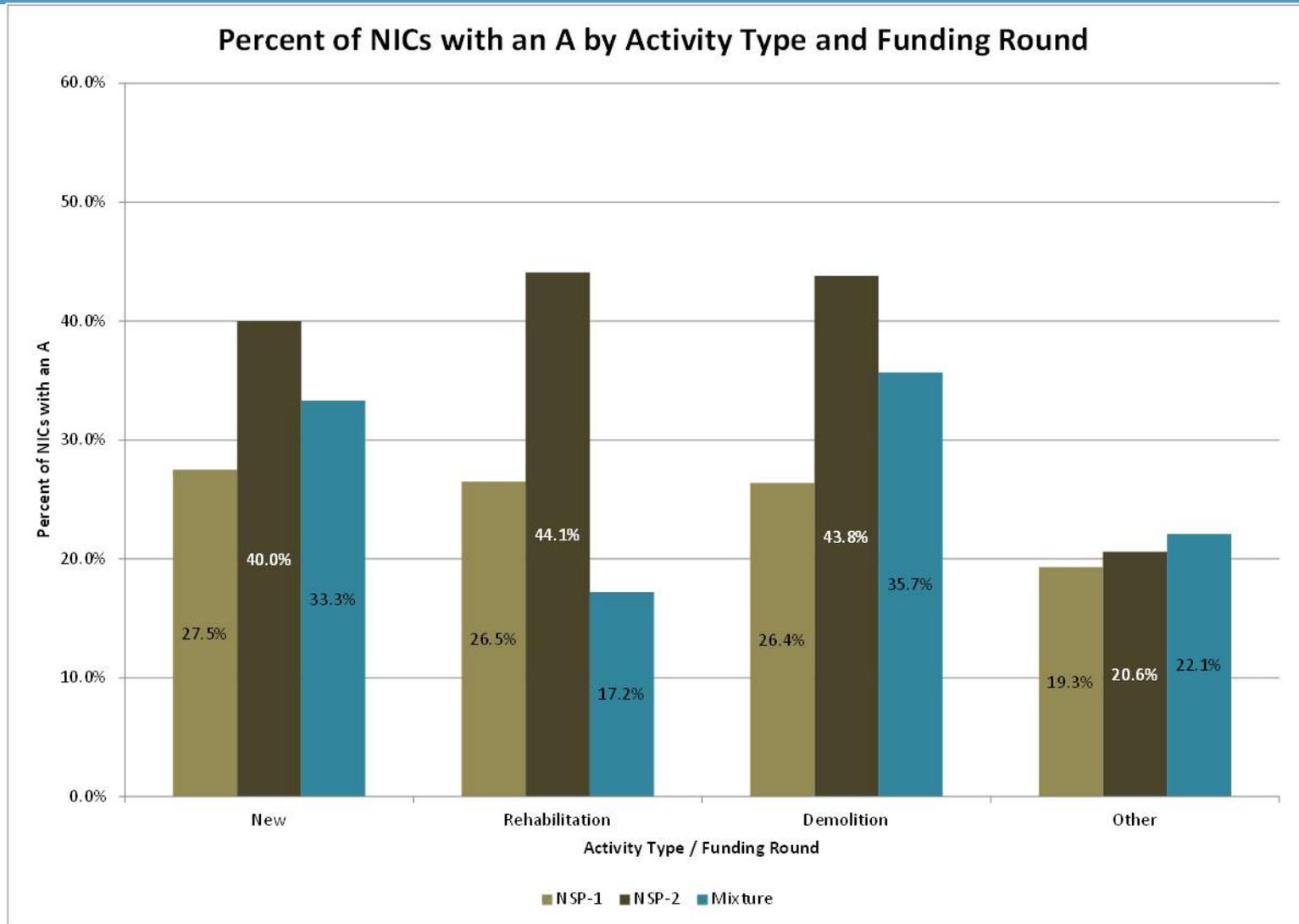
Home sale price comparisons seemed unrelated to the percent African American households in the NIC. Best performance in NICs 50-75% African American.

Home sale price comparisons seemed unrelated to the percent Hispanic households in the NIC. Best performance in NICs 2.5-19.99% Hispanic.

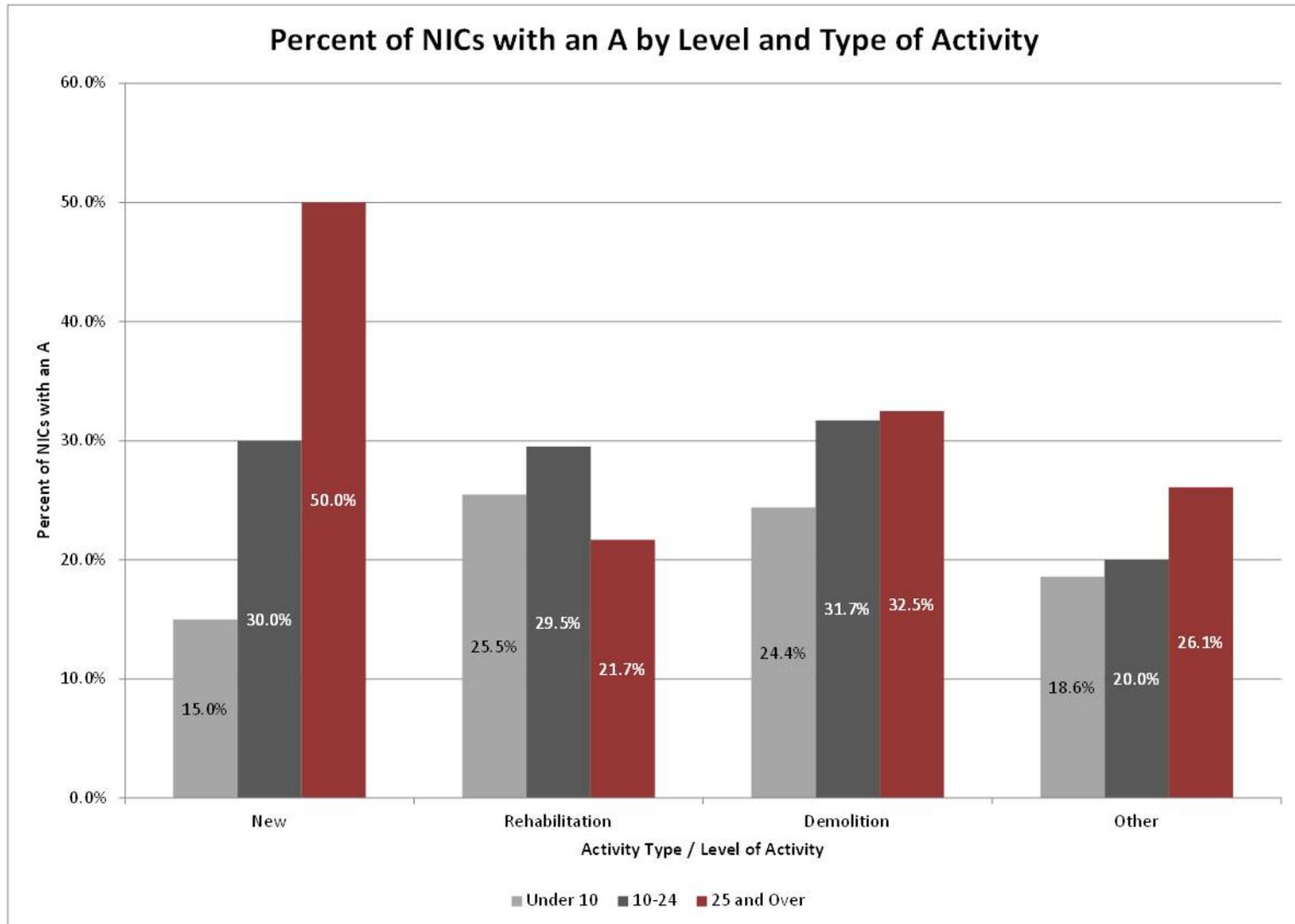
Grade Distribution by Percent Hispanic, 2005-2009



# NIC Performance by Activity Type and Funding Round



# NIC Performance by Activity Type and Level of Activity



# NIC Performance by Activity Type and Level of Activity and Funding Round

- **Among NICs primarily funded under NSP Round 1:**
  - New construction dominated NICs were most positively impactful where the number of investments was 25 or more. *[44.4% received an A compared to 18.8% where the number of investments was less than 10.]*
  - Rehabilitation dominated NICs were somewhat more positively impactful where the number of investments exceeded 10. *[31.9% of NICs with 10-24 investments and 32.1% of NICs with 25+ investments received an A compared to 22.6% with fewer than 10 investments.]*
  - No remarkable difference among NICs dominated by demolition.

# NIC Performance by Activity Type and Level of Activity and Funding Round

- **Among NICs primarily funded under NSP Round 2:**
  - Demolition dominated NICs were substantially more impactful where the number of investments exceeded 10. *[60% of NICs with 10-24 investments and 75% of NICs with 25+ investments received an A.]*
  - Rehabilitation dominated NICs were more positively impactful where the number of investments was less than 10. *[62.5% of NICs with fewer than 10 investments and 50% of NICs with 10-24 investments received an A compared to 0% where the number of investments was 25+.]*
  - Too few new construction dominated NICs to draw any conclusions.

# NIC Performance by Activity Type and Level of Activity and Funding Round

- **Among NICs with no predominant NSP Round:**
  - Demolition dominated NICs were substantially more impactful where the number of investments was 10-24. *[43.8% received an A.]*
  - Rehabilitation dominated NICs were more positively impactful where the number of investments was less than 10. *[20% received an A.]*
  - Too few new construction dominated NICs to draw any conclusions.

## The Reinvestment Fund

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