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# The Impact of Fracking on Rental Housing

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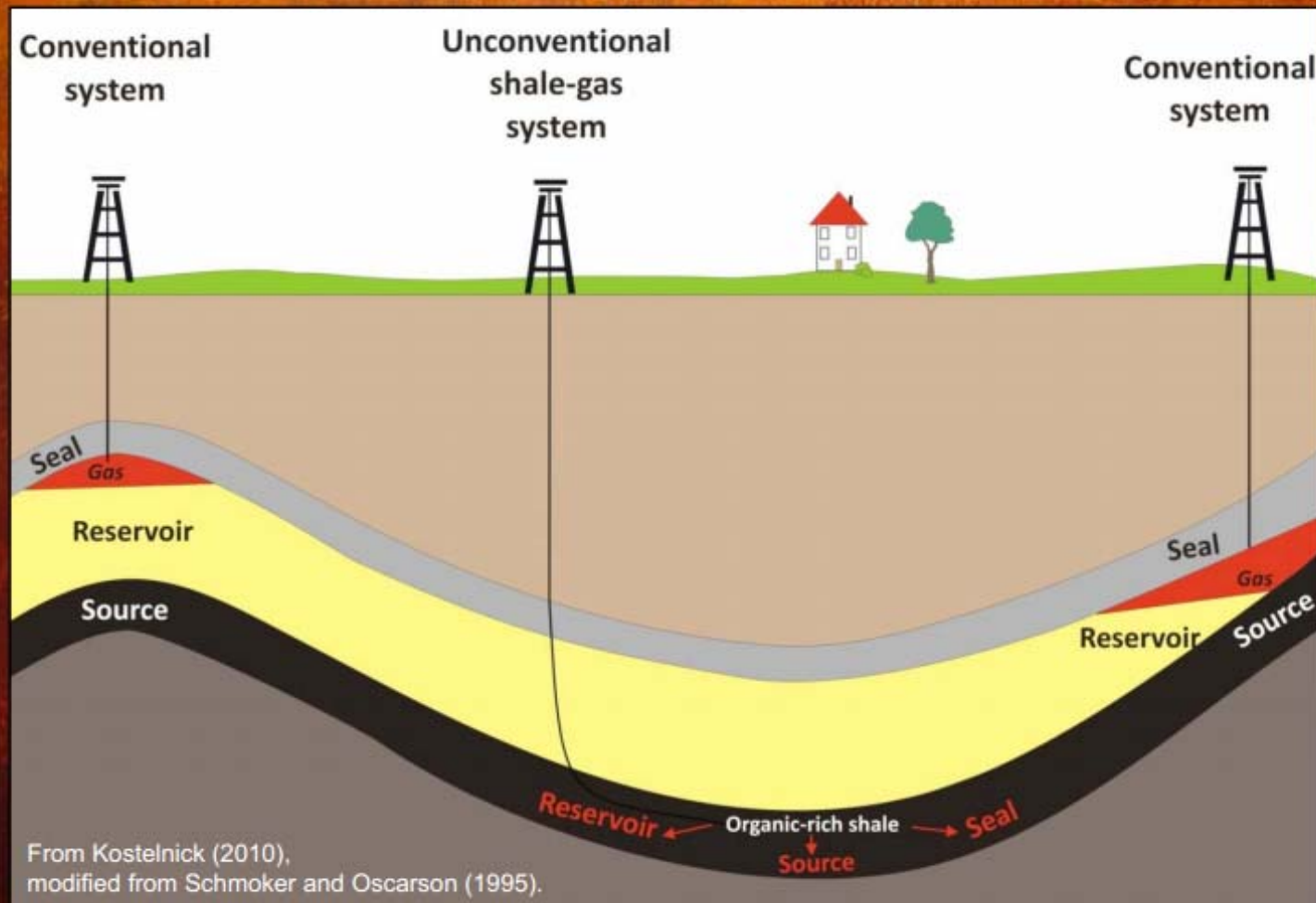
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# Fracking:

(A slang term for “hydraulic fracturing”)

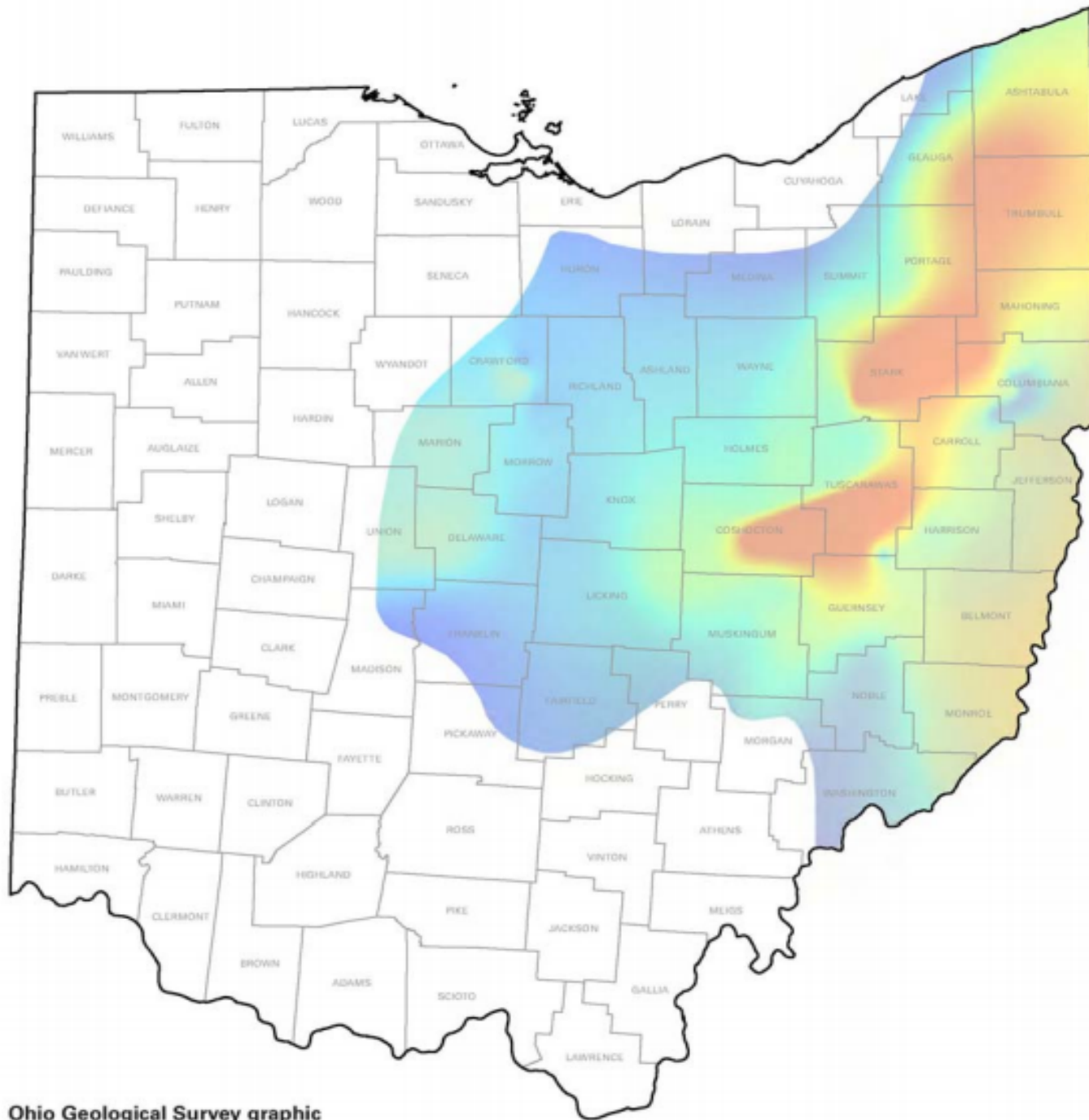
The procedure of creating fractures in rocks and shale rock formations by injecting fluid into cracks to force them further open. The larger fissures allow more oil and gas to flow out of the rock formation and into the wellbore, from where it can be extracted.

# Drilling and producing from organic-rich shales represents a large paradigm shift for the oil-and-gas industry.



Prior to the late 1990s these shales were thought of principally as the source of oil and gas that would then migrate slowly over time into “conventional” reservoirs.

# Utica-Point Pleasant Core Play Area in Ohio with S<sub>1</sub> Maximum Color Ramp Superimposed

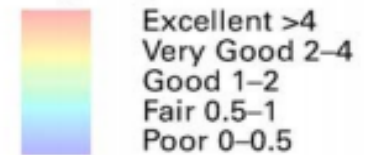


## EXPLANATION

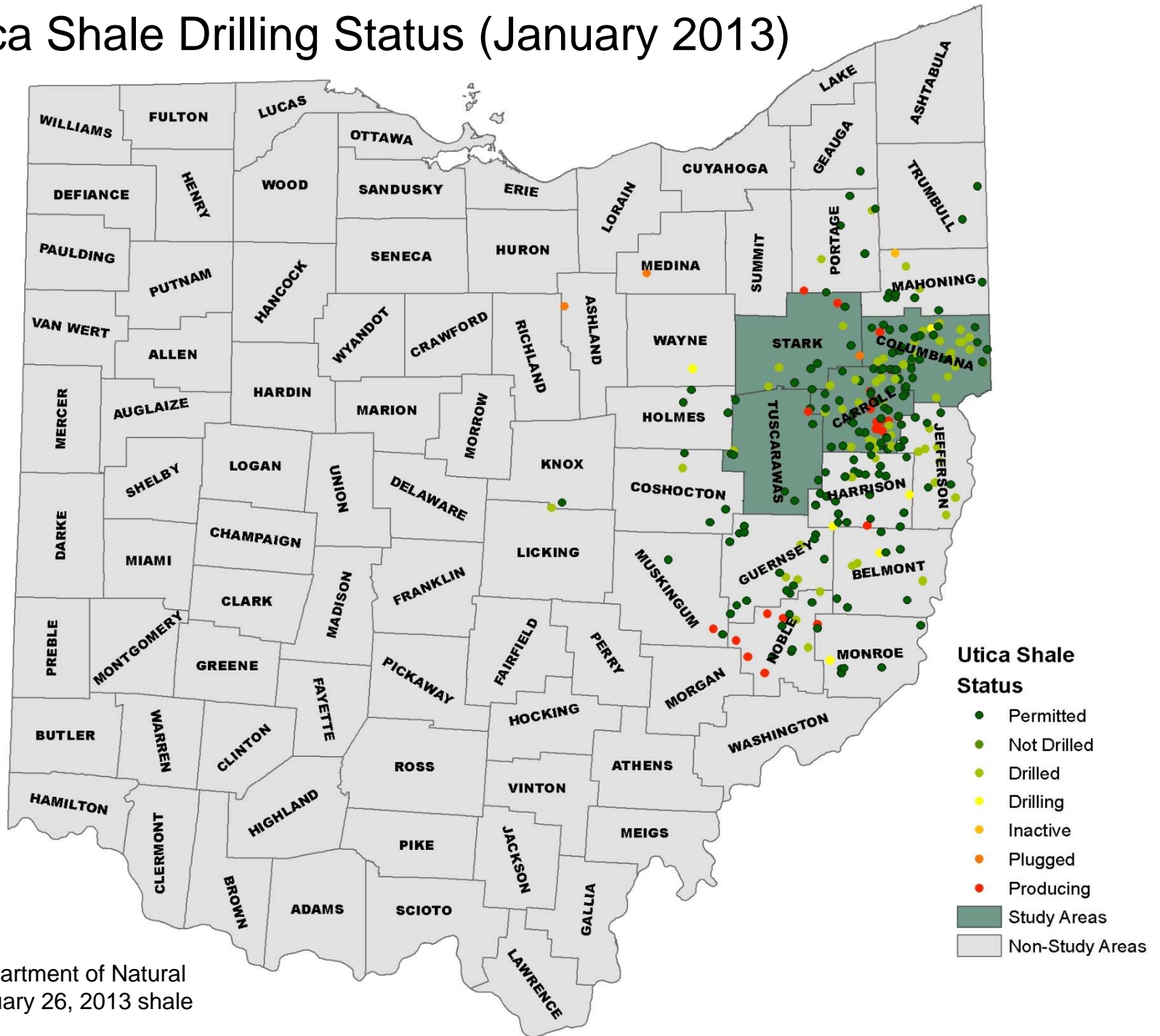
Play core area defined by TOC, S<sub>1</sub>, S<sub>2</sub>, and R<sub>0</sub>

S<sub>1</sub> maximum

mg HC/g of rock



# Ohio Utica Shale Drilling Status (January 2013)



Source: Ohio Department of Natural Resources – January 26, 2013 shale drilling report



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### Utica Shale Shale Wells

County	Producing	Permitted	Plugged	Drilled	Total
Carroll County	27	93	1	58	<b>179</b>
Columbiana County	1	32	0	28	<b>61</b>
Stark County	2	6	1	4	<b>13</b>
Tuscarawas County	1	9	0	2	<b>12</b>

Source: Ohio Department of Natural Resources – Division of Oil and Gas Resource Management (data updated January 26, 2013)

## Employment Impact

- Between 1<sup>st</sup> Q 2011 and 1<sup>st</sup> Q 2012, a total of 1,066 jobs were created in Ohio due to fracking operations (extraction, drilling, operations, construction and pipeline)
- An additional 4,809 jobs were created in ancillary employment (power generation/distribution, construction, various environmental and consulting services and freight trucking)
- Total job impact is reported to be **5,875** in one year (between 1<sup>st</sup> Q 2011 and 1<sup>st</sup> Q 2012)

Source: The Ohio Department of Job and Family Services



## Study Components

Carroll, Columbiana, Stark and Tuscarawas counties

- Evaluate demographic and economic characteristics of each county
- Evaluate current and historic conventional rental housing (apartments) inventory
- Establish occupancy and rent changes over the past year
- Evaluate non-conventional rental housing
- Anecdotal reports of recent changes in demand due to oil/gas exploration employment





## Study Conclusions

- The oil/gas exploration employment has had a mark on rental housing
- Occupancy rates have increased
- Rental rates have increased over past year
- Trends indicate housing markets will become strained over next few years as related employment expands
- Planning should begin to prepare for the anticipated shortage of affordable housing in this region
- This study serves as a benchmark to evaluate future changes in housing in this region



	<b>Demographic Summary</b>	
		<b>2012 (Estimated)</b>
<b>Carroll County</b>	Population	28,919
	Households	11,376
	Median Household Income	\$35,601
	Median Home Value	\$97,123
<b>Columbiana County</b>	Population	108,310
	Households	42,588
	Median Household Income	\$30,502
	Median Home Value	\$91,089
<b>Stark County</b>	Population	376,129
	Households	150,699
	Median Household Income	\$41,664
	Median Home Value	\$114,124
<b>Tuscarawas County</b>	Population	93,131
	Households	37,094
	Median Household Income	\$45,155
	Median Home Value	\$104,771

Source: 2000 and 2010 Census; ESRI; Vogt Santer Insights



Housing Statistics	2010 (Census) Housing Overview							
	Carroll County		Columbiana County		Stark County		Tuscarawas County	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Owner-Occupied	8,919	78.2%	31,213	73.1%	106,356	70.4%	26,688	72.2%
Renter-Occupied	2,480	21.8%	11,470	26.9%	44,719	29.6%	10,277	27.8%
<b>Total-Occupied Units*</b>	<b>11,399</b>	<b>83.1%</b>	<b>42,683</b>	<b>90.6%</b>	<b>151,075</b>	<b>91.5%</b>	<b>36,965</b>	<b>91.9%</b>
Vacant For Rent	263	11.4%	1,118	25.4%	4,992	35.3%	979	30.2%
Vacant For-Sale Only	155	6.7%	767	17.4%	2,453	17.4%	496	15.3%
Vacant Rented/Sold, Not Occ.	70	3.0%	250	5.7%	840	5.9%	224	6.9%
Vacant Seasonal, Recreational	1,405	60.7%	581	13.2%	726	5.1%	449	13.9%
All Other Vacants	422	18.2%	1,689	38.3%	5,113	36.2%	1,093	33.7%
<b>Total Vacant Units</b>	<b>2,315</b>	<b>16.9%</b>	<b>4,405</b>	<b>9.4%</b>	<b>14,124</b>	<b>8.5%</b>	<b>3,241</b>	<b>8.1%</b>
<b>Total</b>	<b>13,713</b>	<b>100.0%</b>	<b>47,088</b>	<b>100.0%</b>	<b>165,200</b>	<b>100.0%</b>	<b>40,206</b>	<b>100.0%</b>

Source: 2010 Census; ESRI; Urban Decision Group; Vogt Santer Insights

\*Total does not include Vacant Units

\*\*Substandard housing units are defined as housing that lacks complete plumbing facilities

Carroll County share of vacancies due to high share of seasonal/recreational housing units around Atwood Lake, Leesville Lake and Lake Mohawk (excluding seasonal vacancies, there are still 910 other vacancies)



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### Overall Conventional Rental Summary

Project Type	Total Units	Current Occupancy Rate	2011 Occupancy Rate	Change
Carroll County	327	99.1%	98.2%	+ 0.9%
Columbiana County	2,634	98.7%	98.6%	+ 0.1%
Stark County	10,299	98.0%	96.9%	+ 1.1%
Tuscarawas County	1,391	98.8%	97.5%	+ 1.3%
<b>Total</b>	<b>14,651</b>	<b>98.2%</b>	<b>97.3%</b>	<b>+ 0.9%</b>

Source: Vogt Santer Insights In-Person Field Surveys



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### Overall Median Non-Subsidized Gross Rents

Project Type	2011 Median Gross Market-Rate Rent	Current Median Gross Market-Rate Rent	Change in Median Gross Market-Rate Rents
Carroll County	\$1,392	\$1,392	0.0%
Columbiana County	\$543	\$553	+1.8%
Stark County	\$665	\$688	+3.5%
Tuscarawas County	\$604	\$659	+9.1%



# The Impact of Compensation

- Between 1st Q 2011 and 1st Q 2012, fracking related employees earned an average of \$73,934
- At the same time, the average compensation for all wage earners in Ohio was \$43,687
- It is not surprising the initial impact on housing is among better quality market-rate units.
- Demand for better quality market-rate will trickle down to lower cost rental housing as owners respond to increased demand

Source: Ohio Department of Job and Family Services, January 2013  
Quarterly Economic Trends for Ohio Oil and Gas Industries



**Sample 1970's-built rental project in Tuscarawas County  
2-Bedroom rents increase by 12.5% over past year**



**Sample 1970's-built rental project in Tuscarawas County**

**1-Bedroom rents increase by 13.3% over past year**

**2-Bedroom rents increased by 11.1% over past year**





## Non-Conventional Rental Housing in Study Area Counties

We gathered information on:

- 11 non-conventional rental units in Carroll County
- 13 rentals in Columbiana County
- 82 rentals in Stark County
- 29 rentals in Tuscarawas County

Note: We were able to identify and survey primarily only the vacant/currently available non-conventional rental units, as occupied units are primarily not being advertised or marketed.



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		Carroll County				
Bedroom Type	# of Units Surveyed	Collected/Asking Rent			Average Year Built	Average Unit Sizes
		Low	High	Average		
One-Bedroom	1	\$900	\$900	\$900	1951	900
Two-Bedroom	4	\$500	\$1,000	\$766	1939	1,011
Three-Bedroom	3	\$700	\$800	\$750	1943	1,027
Four+-Bedroom	3	\$1,600	\$2,000	\$1,833	1980	1,933

		Columbiana County				
Bedroom Type	# of Units Surveyed	Collected/Asking Rent			Average Year Built	Average Unit Sizes
		Low	High	Average		
Two-Bedroom	2	\$475	\$550	\$513	N/A	750
Three-Bedroom	6	\$550	\$1,200	\$871	N/A	1,293
Four+-Bedroom	5	\$675	\$1,100	\$811	N/A	N/A

N/A - Not Available

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		Stark County				
Bedroom Type	# of Units Surveyed	Collected/Asking Rent			Average Year Built	Average Unit Sizes
		Low	High	Average		
One-Bedroom	3	\$350	\$575	\$504	1921	652
Two-Bedroom	9	\$450	\$1,050	\$649	1936	1,101
Three-Bedroom	41	\$485	\$1,625	\$769	1943	1,714
Four+-Bedroom	29	\$995	\$3,300	\$2,007	1980	2,206

		Tuscarawas County				
Bedroom Type	# of Units Surveyed	Collected/Asking Rent			Average Year Built	Average Unit Sizes
		Low	High	Average		
Two-Bedroom	5	\$300	\$1,250	\$710	1997	1,176
Three-Bedroom	15	\$400	\$1,395	\$816	1939	1,372
Four-Bedroom	9	\$600	\$3,000	\$1,498	1944	2,282



## Non-Conventional Rental Changes

- Although rents are increasing, there is a current supply of available rental housing units
- Some tenants have been displaced
- Local realtors and housing representatives stated most of these renters have been able to find alternative housing options
- However, we have not been able to establish whether this housing is of suitable quality, is in the displaced resident's desired location and/or if the rent has increased their housing cost burden.



## Conclusions

- Stark County has yet to see a notable impact
- Carroll, Columbiana and Tuscarawas counties have been impacted more than Stark County
- These smaller counties have experienced rent growth and more reports of tenant displacement
- Rental occupancy rates (primarily among market-rate rentals) have increased over past year
- Census and ACS data indicated that in 2010, approximately 10% of rental housing in the three smaller counties was vacant
- Displaced tenants have generally been able to find additional housing due to previous supply of vacant rentals
- As existing supply is filled, displaced tenants may find other housing to be inferior or less suitable
- As rentals become more scarce and rents increase, housing cost burdens will likely increase



## Conclusions

- Available/suitable housing options are becoming more scarce
- This trend will continue as all employment increases
- We expect housing will be more constrained over the next year and Carroll, Columbiana and Tuscarawas counties housing markets will become strained
- Planning should prepare for the decline in affordable housing
- The anticipated increases in rental rates will adversely impact local residents (rather than new workers moving to the area) with lower incomes who cannot afford notable rent increases
- We have a benchmark of the health of the rental market
- Future/continued monitoring of housing markets in this region is recommended