

Housing Vouchers and the Price of Rental Housing

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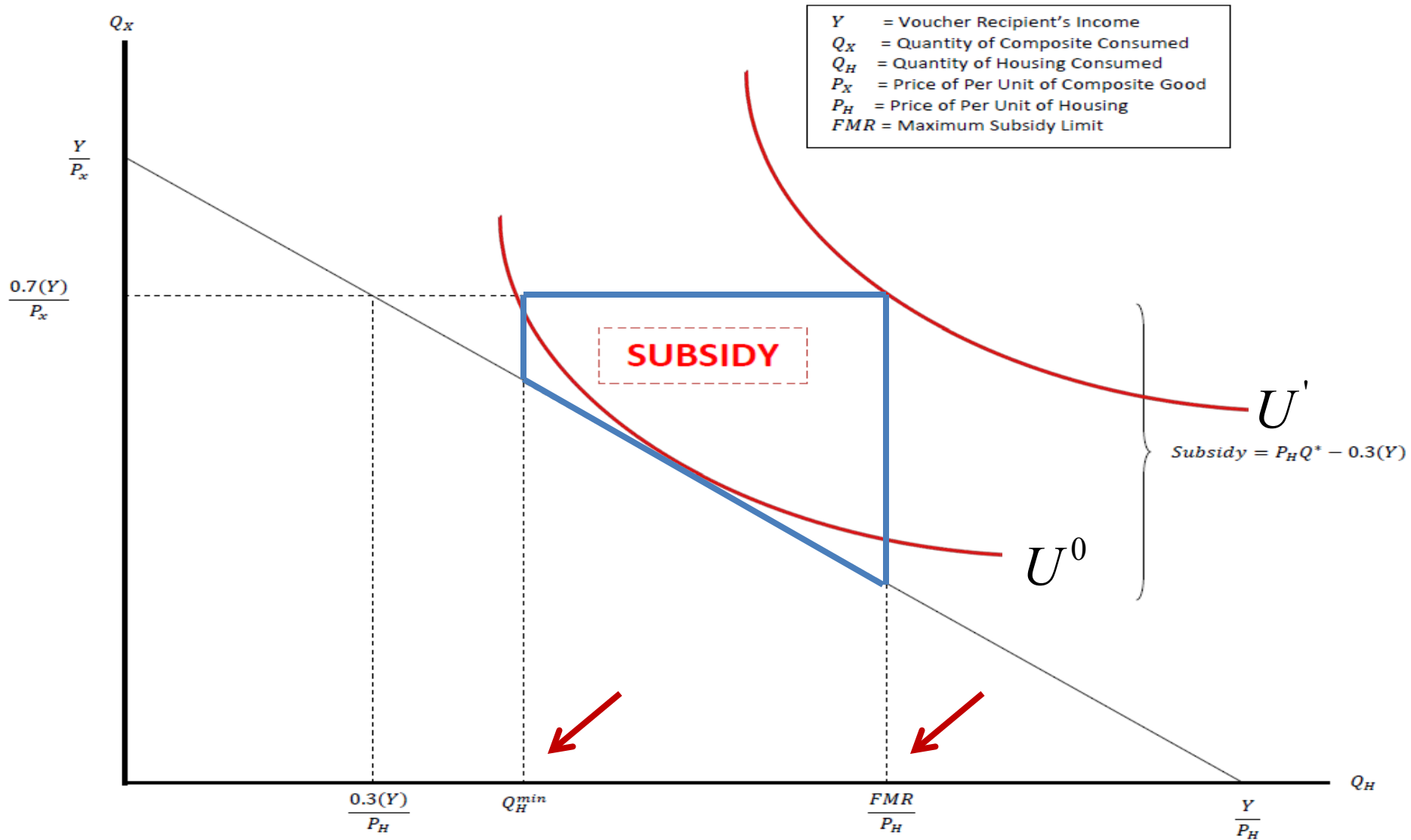
Research Questions

- What is the impact of housing vouchers on the price of unsubsidized rental housing?
 - Panel of rental units from the American Housing Survey from 1997 to 2003
 - Compare rents before and after a major voucher expansion from 2000 to 2002
- Are there heterogeneous effects present?
 - Across the rental price distribution within an MSA?
 - Across MSAs with different supply elasticities?

Institutional Details

- Determination of Amount of Subsidy
 - Vouchers recipients contribute 30% of income towards rent; must purchase minimum quality (Q^{\min})
 - Gov't contributes gap between tenant contribution and “Fair Market Rent” for unit size
- Fair Market Rent (FMR)
 - Determined annually by HUD via phone survey
 - Adjusted for bedroom size, constant throughout MSA
 - Approximately equal to 40-50th percentile of market rent

Institutional Details



Theoretical Predictions

- Expect individuals to increase housing expenditures to be close to the FMR
 - Own contribution remains constant (30% of income)
 - Receive largest subsidy at FMR (~\$8,000)
- Expect demand for low-quality units to decrease
 - Units would have rented in absence of subsidy
 - Subsidy may induce new household formation
- Size of both effects depend on supply elasticity
 - Increase/decrease maintenance in short-run
 - Induces new construction/demolition in long-run

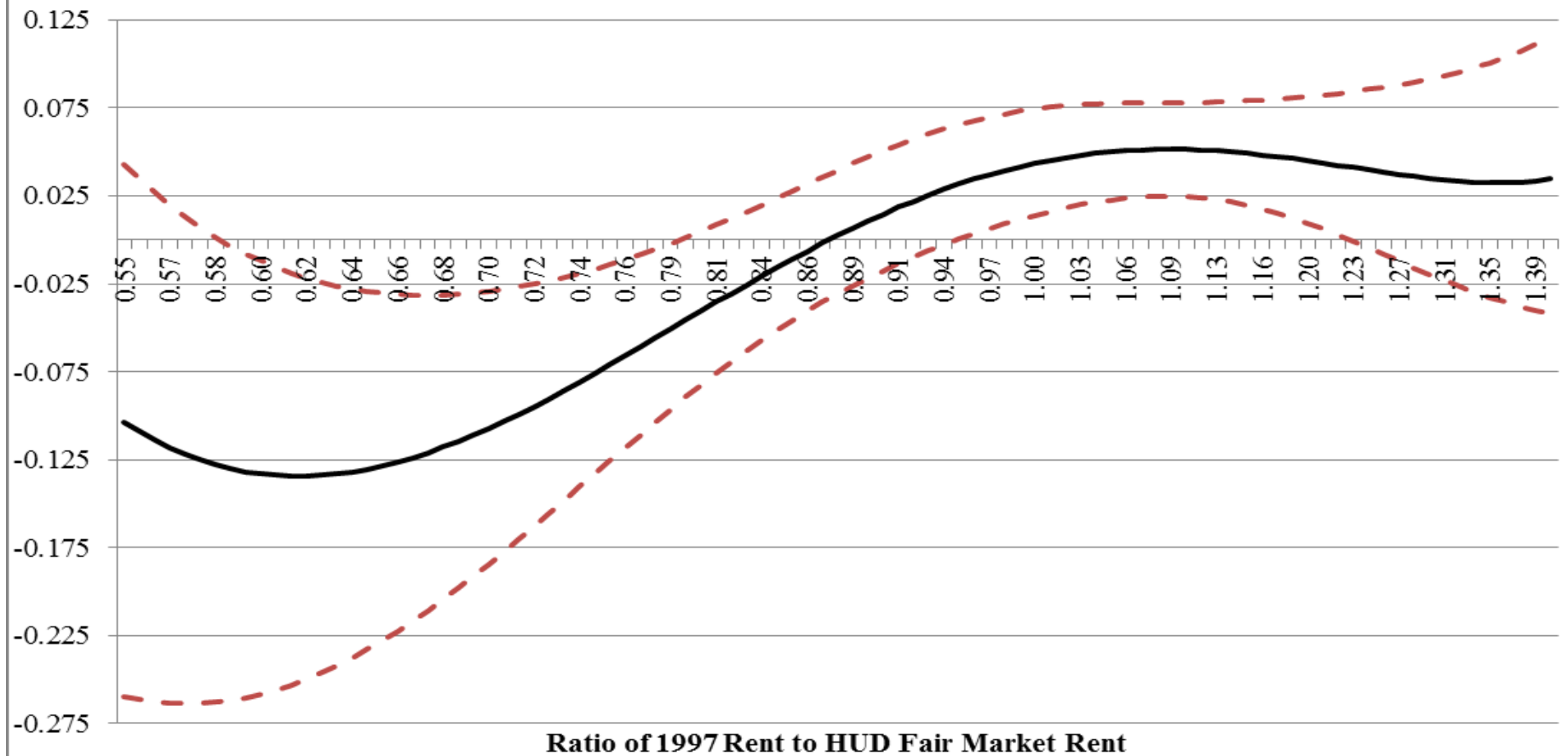
Empirical Strategy

- Create panel of individual rental units
 - Same units surveyed every 2 years in AHS
 - Include individual unit & region-by-time fixed effects
- Draw on two large expansions of vouchers – Fair Share Voucher Allocation Program and Welfare-to-Work Voucher Program
 - Represented a 16.3% increase in vouchers nationwide
 - Largest increase in vouchers in the last 10 years according to GAO

Table 4. Elasticity of Housing Rents with Respect to Housing Vouchers

		Ratio of 1997 Rent Divided by HUD Fair Market Rent	
	Full Sample	Ratio < 120%	Ratio ≥ 120%
Log of Vouchers	0.006 (0.015)	0.011 (0.013)	-0.002 (0.025)
Log of MSA Per Capita Income	0.792*** (0.212)	0.849*** (0.209)	0.872*** (0.280)
Log of MSA Population	0.360** (0.175)	0.339* (0.195)	0.472** (0.202)
Log of Vacancy Rate	-0.020 (0.020)	-0.011 (0.019)	0.019 (0.031)
Unit Fixed Effects	8,393	4,338	4,055
Year Fixed Effects	4	4	4
Within R^2	0.095	0.172	0.044
<i>Observations</i>	25,739	14,035	10,704

**Figure 4b. Elasticity of Rent with Respect to Vouchers
by Ratio of Prior Rent to Subsidy Limit**

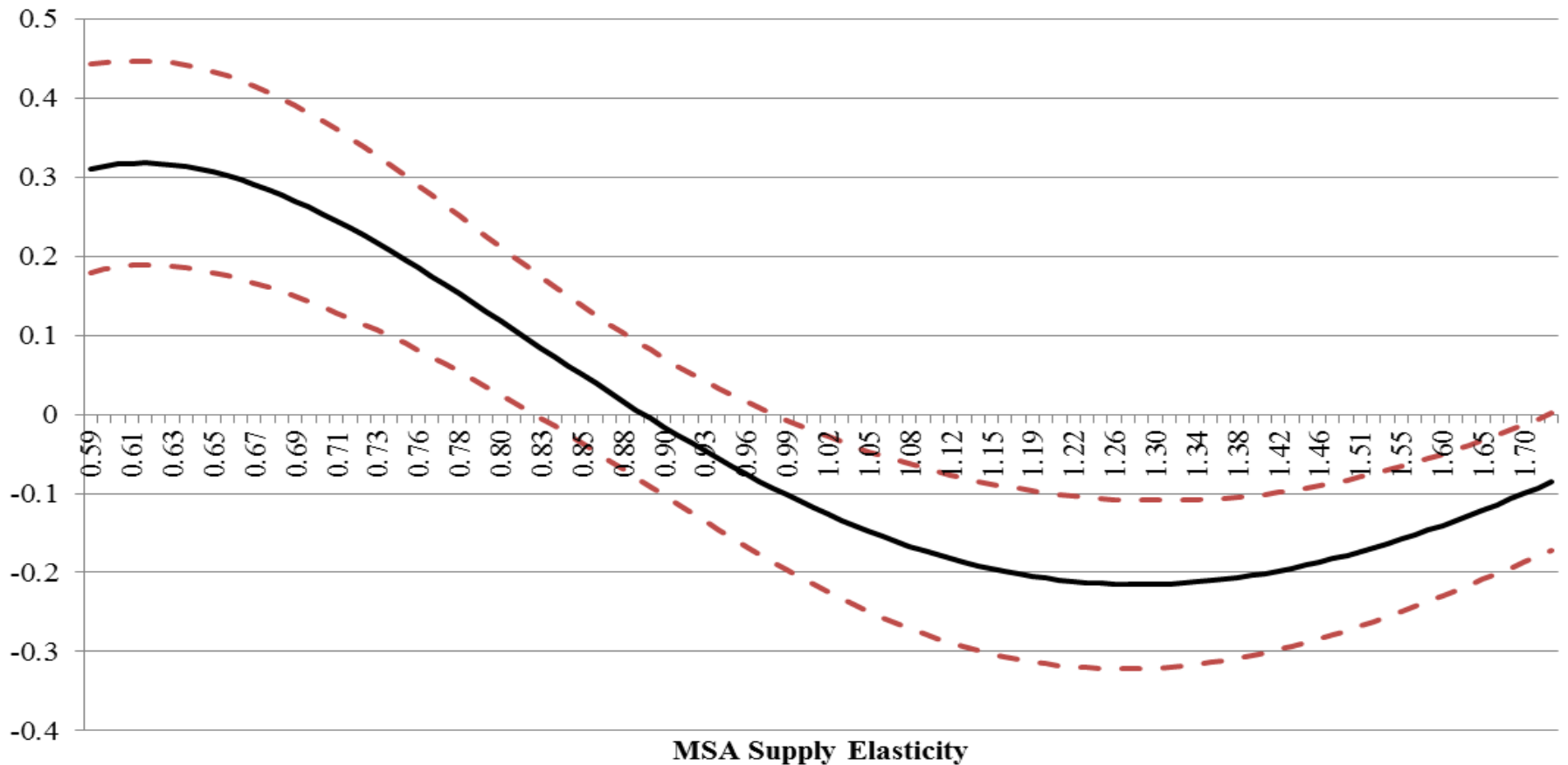


Note: Authors' calculations from interacting vouchers with 5th order polynomial of an individual unit's rent before the voucher expansion (1997) to the HUD Fair Market Rent for a unit of Similar Sized in its MSA. Dashed lines represent 90% confidence intervals .

Table 5. Heterogeneous Effects of Vouchers on Housing Rents by Ratio of 1997 Rent Divided by HUD Fair Market Rent Before the Voucher Expansion

	Stratified by Ratio of <u>1997 Rent</u> Divided by HUD Fair Market Rent		w/ Interaction if Prior Rent < 80% of FMR
	Rent < 80%	80% ≤ Rent < 120%	
Log of Vouchers	-0.096*** (0.036)	0.038** (0.010)	0.040** (0.017)
Interaction of Vouchers w/ Indicator Variable if Rent < 80% of FMR			-0.142*** (0.030)
Log of MSA Per Capita Income	1.182*** (0.405)	0.934*** (0.177)	0.954*** (0.215)
Log of MSA Population	0.349 (0.362)	0.628*** (0.149)	0.543*** (0.206)
Log of Vacancy Rate	-0.048 (0.058)	-0.013 (0.020)	0.003 (0.025)
Unit Fixed Effects	1,399	2,939	4,338
Year Fixed Effects	4	4	4
Within R^2	0.342	0.158	0.196
<i>Observations</i>	4,472	9,563	14,035

Figure 5b. Elasticity of Rent with Respect to Vouchers by MSA Supply Elasticity



Note: Authors' calculations from interacting vouchers with a 5th order polynomial of Saiz (2011) MSA supply elasticity estimates. Dashed lines represent 90% confidence intervals.

Table 7b. Summary of Heterogeneous Effects of Vouchers on Housing Rent Based from Interactions of Supply Elasticity and Prior Rent Before the Voucher Expansion

		Stratified by Ratio of Prior Rent Divided by HUD Fair Market Rent	
		Rent < 80%	80% ≤ Rent < 120%
MSA Supply Elasticity	< 1	-0.046 (0.142)	0.233*** (0.056)
	≥ 1	-0.295** (-0.132)	-0.020 (0.074)

Summary & Policy Implications

- Do additional housing vouchers targeted to low-income households increase the price of unsubsidized rental housing?
 - Much smaller effects than previously estimated
 - \$11.97 decrease in monthly rent for lowest quality units
 - \$4.74 increase in monthly rent for medium quality units
 - Increase concentrated in supply inelastic MSAs
- Policy implications
 - Target demand-based subsidies to elastic MSAs
 - Consider supply-based alternatives in other areas