




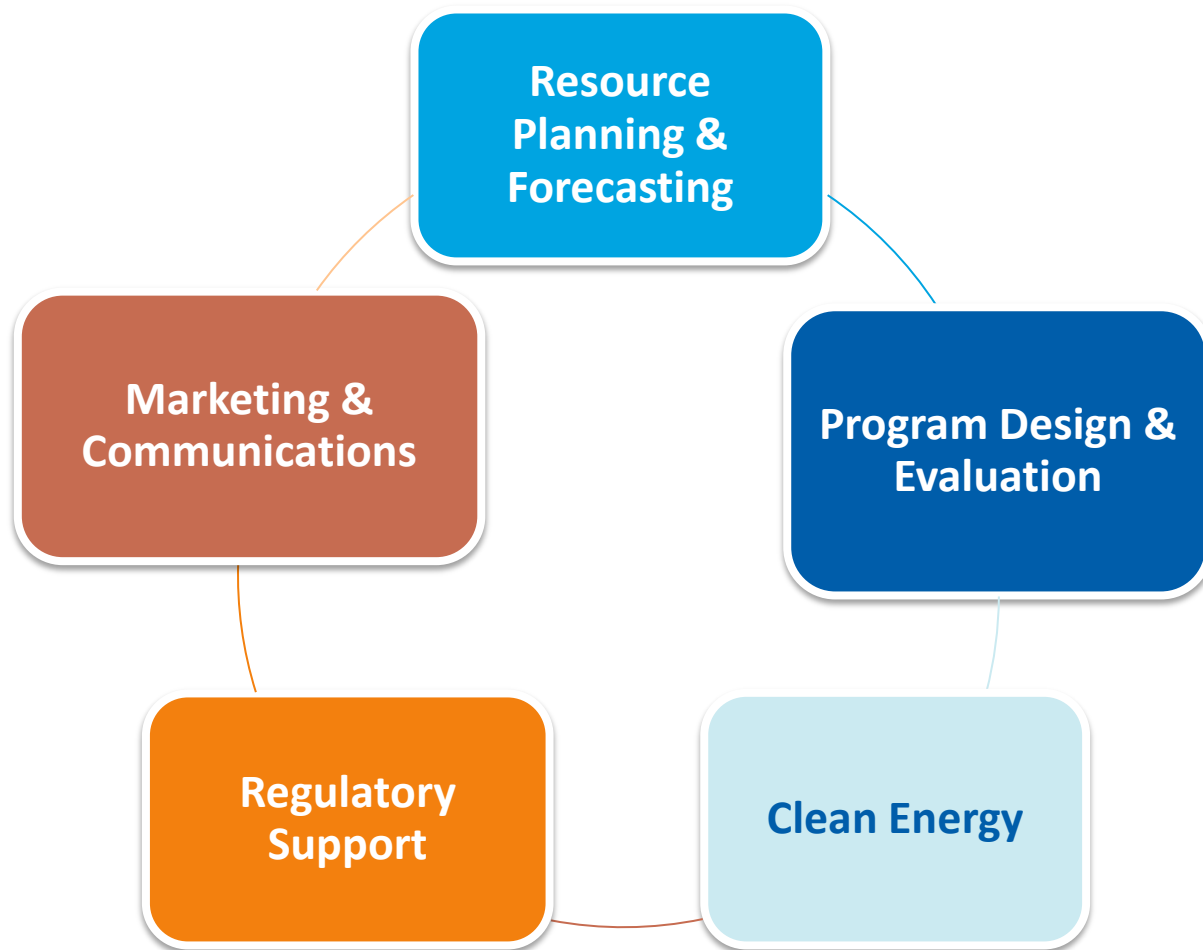
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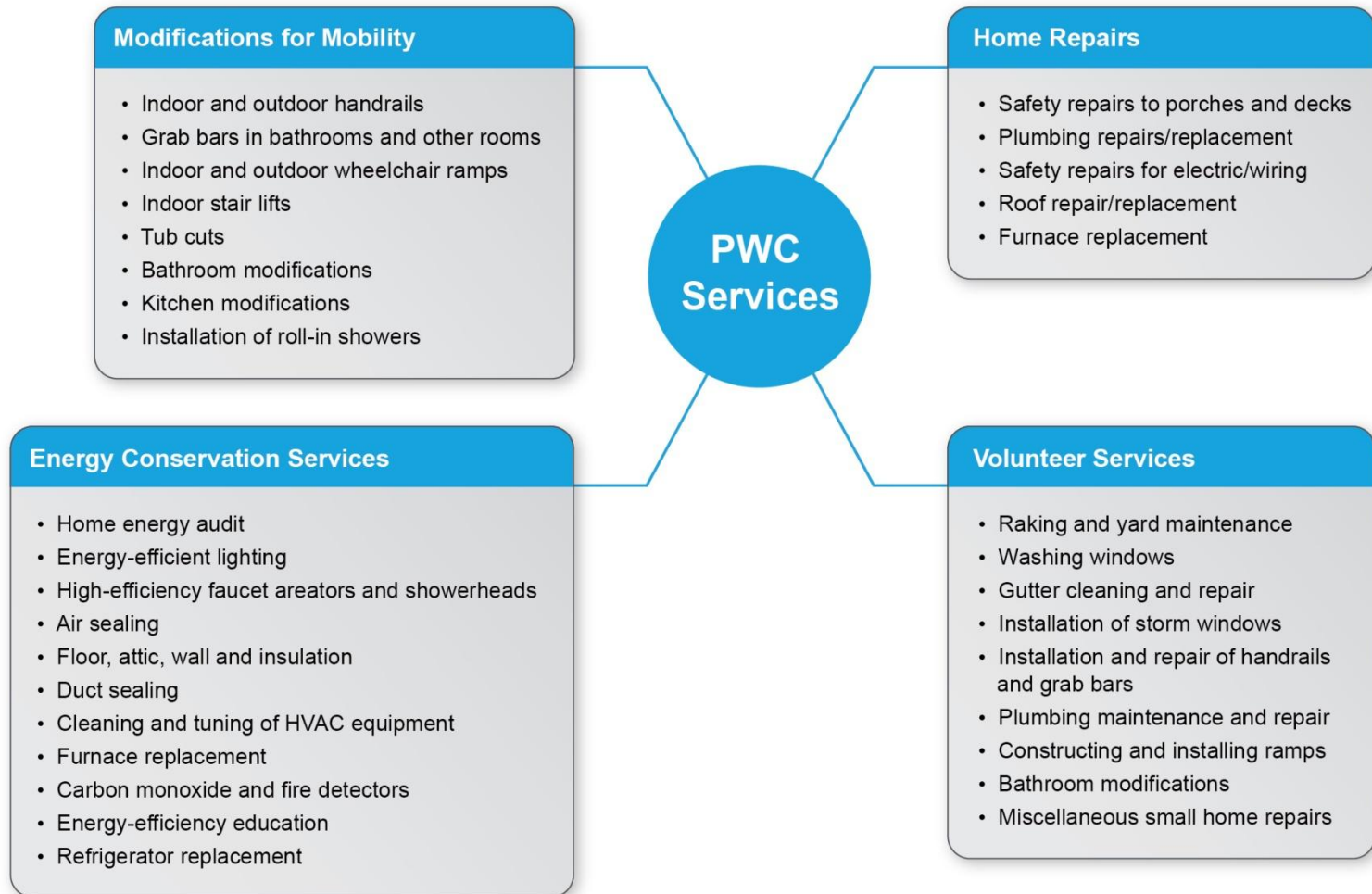
Low-Income Weatherization Benefits for Consumers and Utilities in Cincinnati, Ohio

Jamie Drakos, Cadmus
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Cadmus Areas of Expertise



People Working Cooperatively



Program Benefits

Societal Benefits

- Avoidance of subsidized housing
- Home property value increase
- Local economic benefits
- Environmental benefits
- Reduction in student mobility

Consumer Benefits

- Reduced energy expenses/energy burden
- Increased ability to care for home
- Increased mobility independence
- Reduction in forced relocation
- Improved Health

Utility and Ratepayer Benefits

- Energy and demand savings
- Avoided utility costs
- Fewer shut offs/disconnections
- Improved consumer payment patterns
- Lower collection expenses
- Reduced gas emergencies

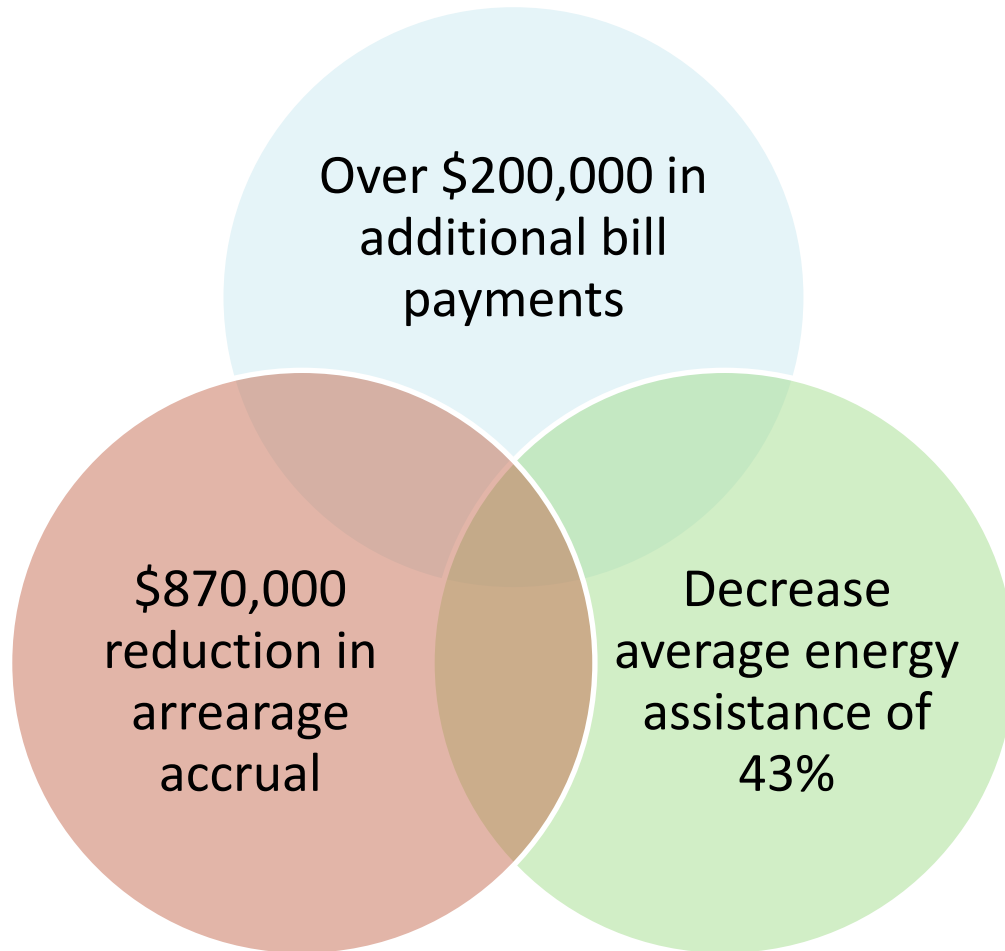


Energy Savings

- 2,829 Energy Conservation Participants
- 2,700 MWh
- 400,000 therms
- Annual Average Participant Energy Savings=\$284



Bill Payment Impacts



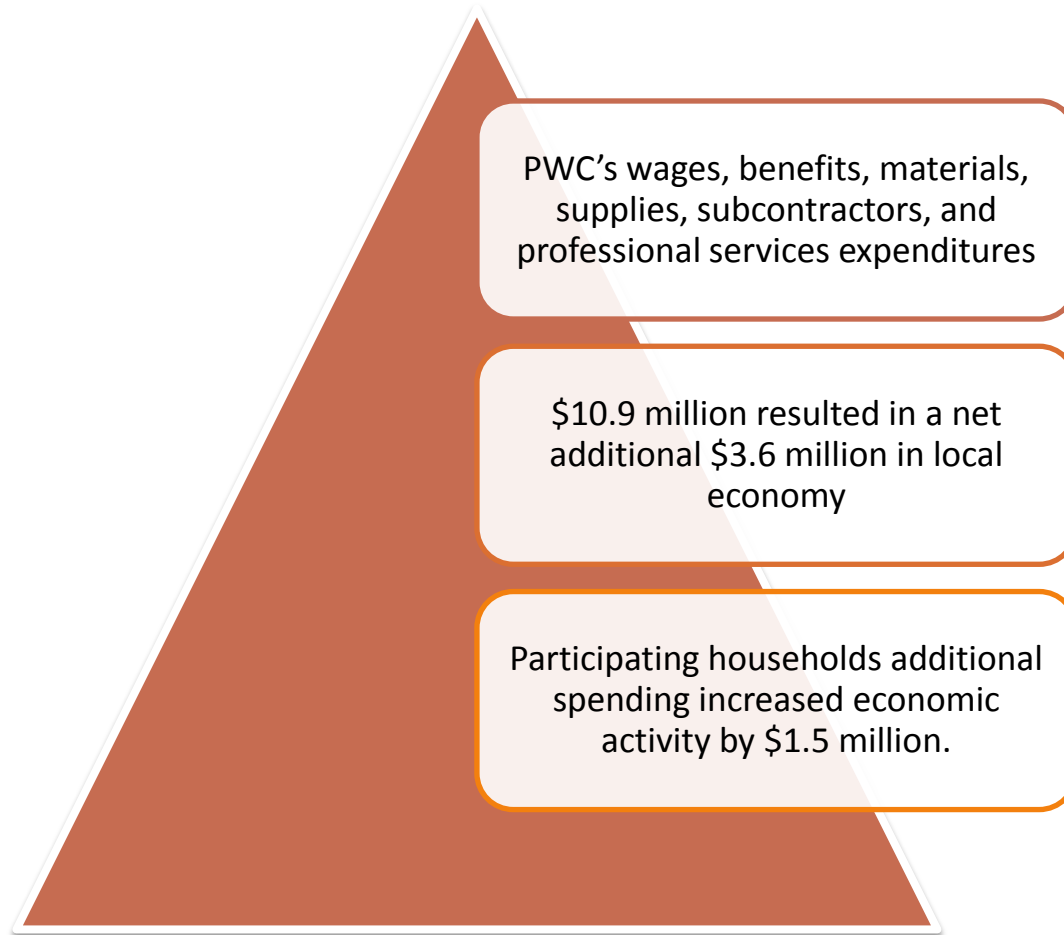
Increased Property Values

- County assessor - 7,400 single-family sales 2000-2010.
- Comparison of sales prices of 68 homes treated by PWC

Type of Home	Impact	Dollar Impact
Received PWC Services	10.6%	\$7,000 (average cost of PWC home = \$70,000)
Neighbors a PWC Home	3.8%	\$4,000 (average cost of neighboring non-PWC home = \$104,000)



Community Economic Impacts



Environmental Impacts

Reduced carbon dioxide emissions by 2,103 tons
(372 fewer cars)

Methane (50 lbs), nitrous oxide (69 lbs), nitrogen oxide (3,630 lbs), and sulfur dioxide (16,327 lbs).





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SUPPLEMENTAL SLIDES



Change in Consumer Payments

Payment Type	PIPP Households	Non PIPP Households	Total Program
	Change Pre -Post	Change Pre -Post	
Total Annual Payments	\$73	\$68	\$200,348
Energy Assistance Payments	(\$79)	(\$68)	(\$204,700)



Reduction in Arrearages

	Change in Arrearage Accrual			Total Program Pre Post Difference
	Pre Period	Post Period	Pre Post Difference	
PIPP Households	\$1,134	\$473	(\$661)	(\$679,508)
Non PIPP Households	\$247	\$144	(\$103)	(\$187,048)



Reduction of Forced Mobility

- 87% of participants helped to remain in homes
- 17% would have been forced to move
 - 3.5% would have moved to subsidized or public housing
 - 13% would have moved to a nursing home



Reduction of Forced Mobility: Housing Cost Savings

- Section 8: \$6,400/year/household
- Public Housing: \$8,600/year/household
 - 84 of 2,390 participants avoided subsidized housing
- Nursing Home: \$54,000/year/person
 - 310 of 2,390 participants avoided nursing home or assisted living



Reduction of Forced Mobility: Student Performance

- 35% participant homes have school-aged children.
- Hamilton County school district data for 10 years – standardized test scores and student mobility.

Test	Time at School: 1 to 2 Years	Time at School: 3 Years or More	Difference
Reading	66%	81%	15%
Math	57%	73%	16%

- Other students at schools with higher levels of mobility also had reduced test scores.



Improved Health

- 44% of participants - health improved as a result of PWC services
 - 15% of these respondents see their doctors less as a result
- 84% said helped reduce their stress



Improved Mobility

- 91% reported increased ability to move around (in/out of home)
- Fewer falls and less fear of falling
 - US Centers for Disease Control reports that costs for fall injuries in people 65 and over are almost \$5,000 each

