

Impact of Split Incentive on Privately Owned UMD Student Rental Housing

What is the split incentive, and why is it a problem?

The split incentive stems from who pays for utilities in a rental housing unit.

- Landlords pay – Properties are typically more energy efficient, but tenants are more likely to overuse.
- Tenants pay – They are more conservative with energy consumption, but properties tend to have fewer energy efficient features.

It results higher levels of wasted energy and highlights the difficulties of conserving energy in rental properties.

How does it impact Duluth and its renters?

- Average age of Duluth’s rental properties is 98 years.
- Average age of owner-occupied homes is 77 years.
- Aged housing stock means, presumably, that many rental properties are energy inefficient.
- Harsh winters necessitate that more than half (55%) of a household’s energy expenses are for heating and cooling (48% nationally)
- Potential city-wide savings to renters and property owners by eliminating the split incentive – between \$5 million and \$14 million total!

Are students more susceptible to the split incentive?

Students are more prone to the effects of the split incentive compared to other types of renters because they

- Tend to choose properties that are larger and have more bedrooms.
- Are more likely to be responsible for monthly utility payments and less likely to have them included in the rent.

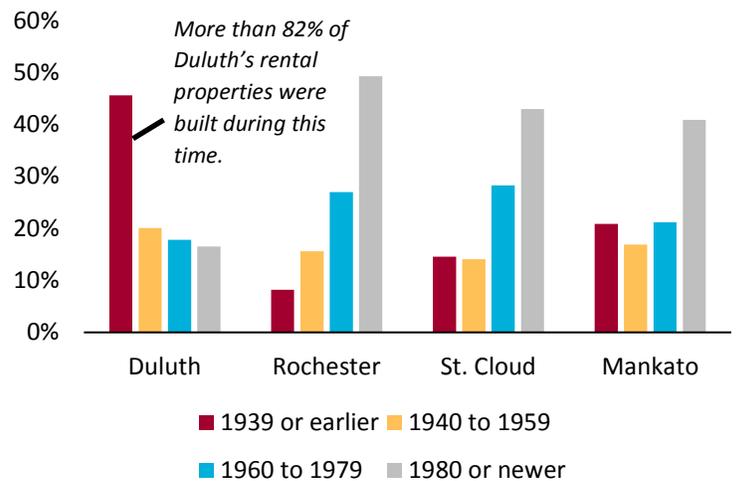
This difference is especially large for natural gas payments, where landlords who rent primarily to students were significantly more likely to report that their tenants pay for natural gas.

Students are most affected by efficiency problems associated with the split incentive in which landlords are less likely to make energy efficient updates (proper insulation, energy efficient appliances, or a new furnace).

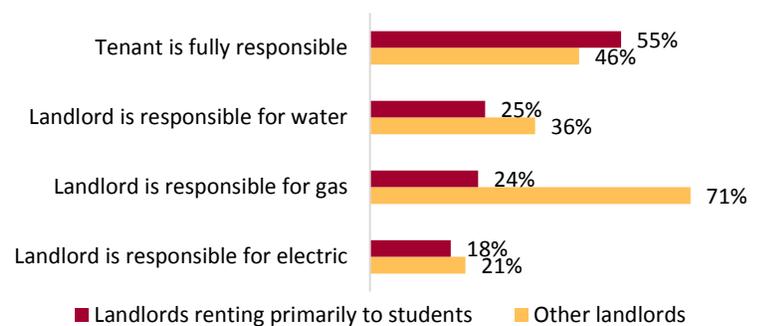
Split Incentives in the Owner-Occupant Relationship

Who pays utilities?	Occupant Owns	Occupant Rents
Occupant pays	No split incentive	Efficiency problem
Landlord pays	Usage / efficiency problem	Usage problem

Average Age of All Properties, by MN City



What percentage of your units are you responsible for the monthly utilities (gas, electric, etc.)?



What is the relationship between energy consumption and the split incentive?

Among landlords who rent primarily to students

- Only 24% pay for natural gas usage.
- Only 18% pay for electricity usage.

Therefore, tenants may try to conserve energy by setting household temperatures low or using less electricity.

Which properties tend to have highest energy consumption? Why?

Overall highest energy consumption per square foot – large single-family properties with more bedrooms (not necessarily owner-occupied).

However, some property characteristics positively predict natural gas consumption but negatively predict electricity consumption even after controlling for other property characteristics like size and estimated market value.

- older properties
- duplex/triplexes
- student residences

This is unusual and could indicate that there is some other, unmeasured variable.

Owner-occupied single family properties have higher average monthly electricity use per square foot compared to similar renter-occupied single family properties, possibly due to higher income levels among homeowners.

How might the community work to address the split incentive?

UMD's Office of Sustainability is considering developing a program to connect student renters with energy efficient housing with the overall goal of reducing energy consumption in rental properties. The BBER surveys of landlords and tenants identified potential characteristics that could help make the program successful.

Top Three Program Characteristics Among Tenants and Landlords

Tenants	Landlords
"Rate my Apartment" style website for property and landlord characteristics (e.g. landlord reputation, safety)	Marketing of your properties as "preferred" for quality renters
Monthly energy usage report, including comparisons to similar properties in your neighborhood	Vouchers to cover a portion of the costs of energy-saving investments
Free energy audit to identify saving opportunities in your unit	Free energy audit to identify greatest energy-saving opportunities

Landlords

- Have less incentive to participate than renters.
- Have little difficulty finding tenants overall.
- Have difficulty finding what they considered high-quality tenants: renters who had the characteristics they valued most. 32% of landlords who rent primarily to students indicated that they would be very likely to participate in a program that screened high quality tenants.

Renters

- Could be provided materials on how to be a high quality tenant.
- Want cost savings, not energy efficiencies in the places they rent. 89% responded that utility costs were an important or extremely important factor in determining where they rent.
- Nearly 80% reported that they would be willing to pay more in rent if guaranteed an equal amount of savings in monthly utility costs.

Energy Use Reduction Efforts

- Natural gas consumption should focus on energy efficient improvements (insulation, windows, etc.)
- Electricity consumption should focus on behavioral changes.

The full report is available under Funded Research Projects at - [Isbe.d.umn.edu/centers-outreach/centers/bber](https://isbe.d.umn.edu/centers-outreach/centers/bber)