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Information Disclosure and Housing Prices

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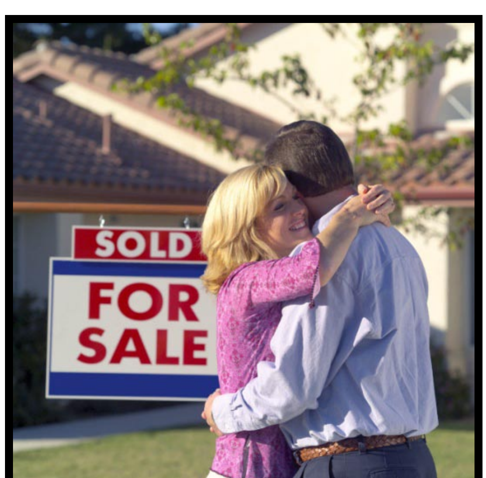
"*What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention.*" -- Herbert Simon

Introduction

Is the happy couple in the picture the buyer or seller of the home? Perhaps the buyers are smiling because they just bought their dream house. On the other hand, they could be the sellers, smiling because they managed to sell their house to a buyer who was uninformed about some undesirable neighborhood characteristics surrounding the house. This difference in interpretation leads to a question I have been studying in a recent series of papers: What impact does information have on housing prices?

Traditional economic models assume that individuals are "fully informed" when making choices in the marketplace. This simplifying assumption helps economists to say something about how people value a product or service relative to other available products and services. However, in a society where access to information is growing rapidly, the demands on human attention and cognitive effort to gather and process the information are certainly increasing more than ever. Furthermore, in the marketplace, the information acquisition burden may often be greater for buyers than for sellers if sellers have more experience with the product. Interestingly, there has been a recent increase in government-mandated "seller disclosure laws" for complex products, suggesting that buyers in the past may have been less than fully informed.



A prime example of individuals not being fully informed is in the housing market where *caveat emptor* (buyer beware) once ruled supreme. Now housing markets across the country are often subject to seller disclosure laws that require sellers to provide information to buyers at low cost. Few studies have documented the impact of seller disclosures in the housing market on a buyer's abilities to improve their home purchase decisions. This lack of assessment is surprising given that many states (including Virginia) have mandated real estate disclosure programs, and that choosing a house to purchase is

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I recently analyzed three information disclosure programs (for flood zones, airport noise, and sex offenders) to better understand their impact on purchase decisions and on the importance of the full information assumption used in economic housing models. The information disclosure programs were used as “natural experiments” to detect if releasing publicly available information had an impact on housing prices. I found that information disclosures for housing attributes whose information was already publicly available can impact housing prices. This result runs contrary to what would be predicted by traditional economic models that assume buyers and sellers know all relevant housing characteristics. Thus, it is clear from these findings that not all information is created equal, and that information must be noticed to be used effectively.

The Impact of Information Disclosures

Flood Zone Disclosure

Flood zones are one example of a housing attribute for which sellers may be more informed than buyers. Beginning in 1996, North Carolina required that sellers provide buyers with a “residential property disclosure statement,” to better ensure that buyers are fully informed about flood risks and other housing attributes. One question asked in our analysis was whether or not the seller disclosure could trigger recognition of this housing attribute by uninformed buyers. A strategy was developed that used the timing of the disclosure to analyze the impact of disclosures on housing prices. By limiting housing transactions to those cases that included both the timing of the disclosure and the flood zone areas, I found that the disclosure reduced housing prices in Federal Emergency Management Agency (FEMA) designated flood zones by approximately 4 percent. Prior to the disclosure, there appeared to be no impact of flood plain designation on housing prices in the area.

These results suggest that differences in the information that homebuyers and sellers have while participating in a housing transaction do make a difference. Apparently, the estimated impact of flood zones on housing prices better reflects homebuyers’ preferences after the information disclosure. The results contradict what would be predicted by a traditional economic model since flood zone information was already publicly available prior to the disclosure law. Therefore, these results suggest that some buyers were uninformed of flood zone locations until after disclosures were mandated. The North Carolina residential property disclosure law appears to have helped buyers to make better decisions in determining which house to buy.

Airport Noise Disclosure

An airport noise disclosure serves as another “natural experiment” that can be used to test the impact of buyers’ increased awareness about information relating to external factors such as airport noise on housing prices. The Raleigh Durham Airport Authority (RDU) became one of the first airports to successfully introduce a real estate disclosure requirement for airport noise. A key feature of the North Carolina Seller Disclosure law allowed RDU to enforce the airport noise disclosures in the local real estate market. Using data on housing sales occurring near the RDU airport that include the timing of the disclosure rule, it was possible to compare housing prices before and after the information disclosure. Results suggest that the disclosure reduced the selling price of homes in high noise areas by approximately 2.1 percent. This reduction is in addition to the approximate 6 percent impact that would be attributed to airport noise in these areas prior to the disclosure.

One interpretation of these results is that a significant fraction of buyers in the housing market near RDU were either unaware or uninformed about the extent of the airport noise prior to the disclosure. This lack of awareness occurred despite the fact that airport noise is thought to be a readily perceptible location-specific "bad" housing attribute, and that information about differences in noise is publicly available. Therefore, the structure of a traditional economic model would imply that noise should be captured in housing prices prior to the disclosure law. The impact of the new disclosure policy on housing prices is therefore difficult to reconcile with the assumption of full information. Much like the flood zone application, it appears that buyers used the information to make better home buying decisions.

Registered Sex Offender Disclosure

Enacted in 1996, Megan's Law requires dissemination of information from sex offender registries to the public via the internet, phone, and other media. This law has been controversial and opponents have raised concerns whether households use or misinterpret the information on the registries. Housing data provides an opportunity to reveal how households react to publicly available information from sex offender registries.

Using housing data for Hillsborough County, Florida and information on sex offender residential locations obtained from the Florida Department of Law Enforcement, I analyzed the impact of sex offender residence locations on housing prices. A movement of a sex offender into or out of a neighborhood was used as a natural experiment to detect the impact of sex offender locations on housing prices. The findings suggest that the average house within a tenth of a mile of a registered sex offender living in a single family residence sold for 2.3 percent less after the sex offender moved into the neighborhood. Once a sex offender moves out of a neighborhood, housing prices appear to immediately rebound. Interestingly, the price impact does not appear to differ for areas near high-risk offenders labeled as "predators". These results suggest that households do acquire and use the information on the registry. However, these results also suggest that households do not differentiate between high-risk and lower risk offenders. Therefore, even when information is provided, it is still possible for households to misinterpret the information.

Are Real Estate Disclosures Beneficial?

At first glance, the results from this research may appear to suggest that disclosures reduce property values. However, these results are only true for those homes located adjacent to "bad" housing attributes for which a disclosure was given. Other homes may see a slight increase in prices as more informed buyers realize that homes without the "bad" attribute are worth slightly more. Therefore, information disclosure can help buyers to choose homes that better match their preferences. For example, a buyer who is very sensitive to noise will more likely choose not to live near an airport after a noise disclosure, whereas another buyer who is not sensitive to noise can then purchase a house in the airport noise areas for less. Furthermore, these more informed buyers are less likely to take legal action against the airport or previous homeowners for noise problems in the future. It is possible that these potential benefits from disclosure can be realized for a variety of other attributes that affect housing.

Conclusion

What do flood zones, airport noise, and sex offenders all have in common? Research suggests that these factors can be used to show that individuals or households should not always be treated as "fully informed" when using economic models to describe the housing market.

Furthermore, this work suggests that disclosure laws often benefit buyers in that the laws allow buyers to find houses that more closely match their preferences. However, it does not fully answer the question of whether these benefits exceed the costs of government disclosure mandates. Nevertheless, the results may provide a reason to analyze other possible types of disclosures whose benefits might outweigh the cost of implementing the disclosure. As the housing market is slowing down in Virginia and elsewhere, disclosures may be even more important as buyers have more time to investigate the disclosed information.

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