Microeconomics, Module 10, "Knowledge and Information" (Chapter 9)

(Concepts and Overview)

(The attached PDF file has better formatting.)

Signaling: College degrees

Even if students learn nothing useful, the college degree is a *signal*. College is a good investment for the diligent student, regardless how much he or she learns.

A signal produces nothing of value, so it is a social waste.

Adverse selection and the market for lemons

The seller has private information.

If *both* sellers and buyers can distinguish good items from bad items, both good and bad items have a market, and they sell at the equilibrium prices.

If *neither* party knows the quality of the goods, the goods trade at an intermediate price.

If *only the seller* knows the quality of the goods, the buyer is willing to pay an intermediate price. Sellers of good quality items are unwilling to sell this low, so only lemons get sold.

If the sellers can *demonstrate* that they are *truthful* about the quality of the goods, social welfare is improved.

Adverse selection and insurance markets

Adverse selection: Insureds know more about their risk characteristics than insurers do.

If insurers can't distinguish between high quality (good) insureds and low quality (bad) insureds, they charge an average premium rate. The good insureds are driven out, since an average premium rate is too high for them.

Alternative strategy (Nash equilibrium):

The insurer sells two policies:

- An inexpensive, low-limit policy, which is bought by good quality insureds who do not need the coverage.

- An expensive, high-limit policy, which is bought by poor quality insureds, who are willing to pay more for each dollar of coverage.

The insureds separate themselves; this is called a *self-separating equilibrium*. This is *not* a social optimum, since the good insureds can't buy their desired amount of coverage, but the social optimum isn't an equilibrium.

(This Nash equilibrium is *not* tested on final exam. It was suggested by an economist named Stiglist, but it is *not* used by insurance companies and it is *not* a practical solution.)

Moral and morale hazard

Landsburg uses the term moral hazard for what the insurance industry calls morale hazard. Underwriters differentiate between *moral hazard* and *morale hazard*; we use the insurance industry terms in this course, not Landsburg's terms.

- *Morale* hazard is the incentive for insured persons to take more risks.
- *Moral* hazard is the filing of false claims by insured persons or claimants.

Partial remedies for morale hazard is for the insurer

- To require good behavior (by contract terms)
- To create incentives for good behavior (by offering loss reducing devices at a discount)

- With *adverse selection*, one group starts out at higher risk.
- With *morale hazard*, the risk increases as a result of being insured.

Principal-Agent Problems

The principal cannot verify the behavior of the agent.

If the agent is providing full effort, the principal offers a higher wage and both are better off.

Monitoring allows the employer to see both shirking and good work.