Youngberg

Econ 280—Bethany College

**Homework 04**

Answer all the following on a ***typed, stapled*** (if applicable)separate sheet of paper. You do not need to type equations and graphs. I charge 25 cents to staple your homework. Make sure that you justify your answers, use your own words, and show your work. All questions are equally weighted.

1. Using at least one example, define moral hazard. How is moral hazard different from adverse selection?

*Moral hazard occurs when a chosen option, which starts off as the correct option, becomes the poor choice as a result of the incentives he or she faces. For example, after professors reach tenure (a state of employment which basically renders the professor unable to be fired) productive scholars and educators often succumb to the lack of incentive to produce and work less hard.*

*Note moral hazard is different from adverse selection since the professor* was *a productive person but became less productive as a result of the incentives. In other words, the problems associated with moral hazard occur after the choice is made rather than before, which what describes adverse selection.*

1. In many classes, it may seem like what you’re doing has no real world relevance even if these classes are required for your degree. While what you major in matters for your future earning potential (as we discussed), getting a degree in any major increases your earning potential even if you took many classes with little or no practical application. Why?

*Regardless of major, all colleges require a core set of classes and a lot of work within each major. While philosophy has little practical application, it requires a lot of work. Degrees are thus signals one can send employers, demonstrating that they are smart, can work hard, and finish what they start—valuable traits in any job. Since it is relatively easy to finish college if you have these traits and relatively hard to finish if you do not, college allows employers to sort out good employees from bad. It combats adverse selection.*

1. Consider Cathy Cornwall of Cathy’s Cleaning Crew, a company which commissions crews to clean for customers. Cathy wants to make sure her teams of cleaners do a thorough job at each domicile they visit without wasting any time (such as spending too much time at a home) or money (such as not using the strongest cleaning products for every mess since those products are most expensive but not always necessary). This is a very difficult balance to achieve since homes vary widely in the level of cleaning they need and the quality of cleaning is not easy to measure. Ideally, Cathy would be with a crew to make sure they achieve the right balance but Cathy has several crews—she can’t be everywhere at once—so she considers two different incentive structures to properly motivate her employees. Assume customers are assigned randomly to crews, thus everyone ends up with roughly the same number of very dirty homes, relatively dirty homes, etc. over the course of a month. (In other words, all crews should end up with the same amount of work.)
   1. **Option 1.** For the crew which receives the best customer reviews (which are based on level of cleanliness and professionalism), Cathy will give each member a $1,000 bonus. This contest occurs each month.
   2. **Option 2.** For every 5,000 square feet of living space (thus accomplished with many small homes, a few large ones, or a mix of both), each team member get a $50 bonus.

How does each option accomplish some of what Cathy wants? How does each option fail at accomplishing something else that Cathy wants?

*Option 1 is good in several ways. For one, it encourages the teams to be act professionally and thoroughly. As a tournament, it also controls for environmental factors—sometimes of the year are dirtier than other times of the year. For example, crews are not punished for working in the spring or during the holidays, where messes are more likely and customer standards are higher.*

*Option 1, however, does not encourage frugality. Crews have the incentive to use the best product all the time and they might spend too much time at a home in an attempt to secure the best reviews. As a tournament, it may also induce sabotage or, if one crew is naturally better than the others, apathy.*

*Option 2 is good in a different way: it encourages speed and the crews have an incentive to serve many different customers. Note this system is a piece rate system.*

*Option 2 has problems because it’s a piece rate system. As implied by the paragraph, cleanliness is hard to judge and the crews now have an incentive to rush through their jobs to get the most done. Quality will likely suffer. One can imagine the crews will also use cleaners that are too strong in an effort to move on to the next job more quickly.*

1. As mentioned, law and economics concerns with structuring the law as to encourage economic efficiency. Select one of the ways contracts can be rendered unenforceable. How does that way of unenforceability encourage a more efficient society?

*Consider illegal activity. If contracts could cover illegal activity, then that weakens the laws that are meant to prevent such activity by making the activity less costly to engage in. Assuming the activity is worth being rendered illegal (fraud, theft, murder, etc.) then emboldening such laws by breaking them costlier encourages efficiency. In other words, the law makes it easier to do the efficient thing.*

*Consider misrepresentation. If contracts allows people to deceive one another—not fraud but just deception—then it discourages efficient exchange (much like allowing fraud would). Not only will some people buy goods they later regret, but others will be hesitant to buy goods they would actually like, in fear they are being deceived. In asymmetric information we assume the buyer knows more than the seller so, smartly, we put the burden of truth on the seller.*

*Consider mutual mistake. If both parties make the same mistake, we cannot claim there was an efficient exchange since one party will express regret over the transaction. By ripping up contracts that lack a “meeting of minds” we encourage people to seek out knowledge about the good they are buying or seller. Note that if one party knows more but didn’t deceive the other party, that contract is valid: it encourages people to utilize their knowledge. In mutual mistake, neither party had the knowledge to utilize.*

1. In *Drake v. Lerner Shops of Colorado, Inc.* (1960), a woman leaves a clothing store and, blinded by sunlight which happen to be quite bright that day and reflecting off a white building across the street at the just the right angle, fails to see an otherwise clear “Step Down” sign. She trips as a result and falls, fracturing a hip. She sues the store for damages. Using the Learned Hand formula, predict how the judge would rule on this case. Be sure to justify your answer by estimating values for each part of the formula. (In other words, what’s the expected cost of being blinded by the sun, causing a fall and an injury versus the cost of ensuring such an accident as stated never happens?)

*What’s the burden (B) a firm must suffer to make sure no one else suffers Drake’s fate? Probably pretty high: they’d need some sort of awning to block out the sun for when the light happens to hit at the right angle. It’s unclear exactly where that awning would have to be, but it could easily stick way out into the sidewalk, disrupting travel. They would probably need to pay the city an additional fee.*

*What’s the probability (p) this’ll happen again? It’s very, very small. For one, the light was at just the right angle which will be rare at any time of the day, especially if it’s cloudy a lot. Furthermore, not only would there have to be a customer leaving at that moment, not only would the customer be in such a shape that a single-step trip would cause her to fall, but the customer would also have forgotten that there was a step when she entered.*

*What’s the liability (L) that would occur? It depends on the fitness of the victim. For most, falling a step results in no serious injury at all. For a few, though, it can be quite serious, but rarely life-threatening. So we should decrease p more (since for most, L is basically zero) to reflect the at-risk victims, and let L reflect that cost of fracturing a hip.*

*In sum, B is quite large, p is very, very small and L is high, but not so high that it overcomes p. In other words, pL is less than B: judge should rule in favor of defendant.*

*Indeed, that is what the judge ruled. While he didn’t explicitly reference the formula, he noted:[[1]](#footnote-1)*

*…*plaintiff's evidence must establish the existence on the premises of an unreasonable risk of harm to her as an invitee. The mere existence of risk is not sufficient. Some degree of risk is present in our every activity and if existence of hazard alone were the standard, it would mean that the happening of an accident would be sufficient to raise a presumption of negligence and the landowner would be an insurer of the safety of his patrons. Such is not the law.

1. <http://scholar.google.com/scholar_case?case=849442606474758843&hl=en&as_sdt=2&as_vis=1&oi=scholarr> [↑](#footnote-ref-1)