

ECO381 Research Assignment

Deadline

The students must submit a soft copy (by e-mail) and a hard copy (in class) of their paper no later than November 27, 2018 by 8:00 PM. Late submissions will not be accepted.

Format

The paper should be typed. There are no limits on the length of the paper; however, papers longer than 2,500 words are probably too long. As a guideline, students should take as much space as needed to explain their points, recognizing that clear, concise statements are generally most effective way to do so. The paper should not include any math notation or symbols. At the end of the paper, the students should attach the evaluation scheme page available at the end of this document.

Group

The students may choose to work alone or in groups. However, groups of more than three students are discouraged. All students in the group will receive the same grade.

Topic

The students may write about any incentive problem of interest to them, or they may choose one of the following five policy problems:

1. [Placement] The median wait for placement into a long-term care (LTC) home is 113 days, which is too long. At the same time, approximately one in five patients placed in LTC homes do not have high or very high needs, suggesting their needs could potentially be met elsewhere. Although this indicator has improved in the last two years, there is still room to improve.
2. [Health Behaviors] Ontario has made important progress on smoking in the last decade, but there has been no improvement on physical inactivity or poor fruit and vegetable intake, and obesity is gradually getting worse. There is still room to improve, and British Columbia outperforms Ontario in many of these areas.
3. [Discharge] Many patients are not getting the information they need when leaving the hospital or emergency department (ED). Only half of ED patients know what danger signs to look out for at home and only six in ten patients know whom to call if they need help. About half of hospital patients don't know when to resume normal activities. Although most patients know how to take the medications, about a third do not know what side effects to watch for.
4. [Readmissions] Hospital readmissions occur frequently. For common conditions like CHF and COPD, about one in five patients is readmitted within one month. There has been little or no improvement in readmissions in recent years, except for heart attack, where readmissions have declined significantly.
5. [Patient Experience] About one in four sicker adults do not get to ask enough questions or feel involved in decisions about care. About one in three sicker adults do not believe someone always coordinates the care they receive from other doctors or places.

Research Tasks

For the incentive problem you choose to write about, the paper should cover the following sections, in the same order as they are listed (maximum marks for each section in squared brackets):

0. [5] Define the problem that you study.
1. [5] Represent the problem that you study using the principal-agent framework.
2. [10] Describe the efficient outcome and the contract that can implement this outcome when the agent's action can be observed and verified.
3. [20] Describe how each of the following factors may affect the extent to which the agent's pay should be tied to performance in the problem you study when the agent's action cannot be observed or verified. Where relevant, discuss the efficiency properties of the feasible contract and specific challenges that the factor imposes on the type of feasible contracts.
 - a. Risk preferences of the agent and the principal
 - b. Availability of additional performance measures
 - c. Multitasking
 - d. The agent's ability to manipulate the performance measures
 - e. Availability of non-verifiable performance measures
 - f. Whether the relationship occurs within a multilayer organization
 - g. Existence of non-financial incentives
4. [40] Design an optimal contract for the problem you study. This step should include a discussion section, in which you defend decisions you make about the proposed contract based on your analysis in step 3, and a summary statement of the proposed contract.
5. [10] Provide a non-technical summary of your analysis, including the description of the problem in the principal-agent framework and the contract you proposed in step 4. Also include an example of the contract, with (made-up) dollar amounts for the fixed and variable pay and the list of actions, if any.

Additional 10 marks are allocated for good writing and exposition.

Resources

1. The students are not expected to do research outside of the course lectures and materials. Rather, the paper should be based on their understanding of the principles developed in the course and their critical thinking about how these principles apply to the problem they study.
2. I'm available for consultation during my regular office hours and by e-mail. I will provide feedback on the problem that you study and its representation only (research tasks 0 and 1 above), but not on any other tasks 2-5), except to clarify any questions.
3. Check also writing resources available at <http://www.writing.utoronto.ca/>.

Evaluation

Overall, the paper will be evaluated on how well the students apply the principles developed in the course to the specific problem they study. Therefore, generic statements of the principles and lack of concrete, vivid and relevant examples are strongly discouraged. Specifically, the paper will be evaluated using the evaluation scheme presented on the next page. Make sure to attach this page at the end of your paper.

The Evaluation Scheme – Don't Forget to Attach at the End of Your Paper!

Task	Excellent	Good	Adequate	Problematic
1. Define and describe of PA relationship	<ul style="list-style-type: none"> All elements discussed in sufficient detail 10 Relation between elements well discussed Elements illustrated using concrete, vivid, relevant examples 	<ul style="list-style-type: none"> All elements discussed in sufficient detail 8 Relation between elements not well discussed Concrete, relevant examples 	<ul style="list-style-type: none"> Some elements not discussed in sufficient detail 6 Relation between elements not well discussed Concrete, relevant examples 	<ul style="list-style-type: none"> Most elements missing or not discussed in detail 4 Relation between elements not well discussed Generic, irrelevant examples
2. Efficient outcome and contract	<ul style="list-style-type: none"> All efficiency conditions discussed in sufficient detail 10 All contract elements and their properties well described Excellent discussion of how principles apply to the policy problem 	<ul style="list-style-type: none"> All efficiency conditions discussed in sufficient detail 8 All contract elements and their properties well described Good discussion of how principles apply to the policy problem 	<ul style="list-style-type: none"> Some efficiency conditions discussed in sufficient detail 6 Some contract elements and their properties not well described Good discussion of how principles apply to the policy problem 	<ul style="list-style-type: none"> Many efficiency conditions not discussed sufficiently 4 Many contract elements and their properties not well described Poor discussion of how principles apply to the policy problem
3. Analysis of factors	<ul style="list-style-type: none"> Clear and detailed discussion of how each factor influences $w'(q)$ 20 Efficiency and limitations thoroughly discussed Excellent discussion of how principles apply to the policy problem 	<ul style="list-style-type: none"> Clear and detailed discussion of how each factor influences $w'(q)$ 16 Efficiency and limitations thoroughly discussed Good discussion of how principles apply to the policy problem 	<ul style="list-style-type: none"> Discussion of how some factors influence $w'(q)$ not clear or detailed 12 Efficiency and limitations not thoroughly discussed Good discussion of how principles apply to the policy problem 	<ul style="list-style-type: none"> Discussion of how most factors influence $w'(q)$ not clear or detailed 8 Efficiency and limitations not thoroughly discussed Poor discussion of how principles apply to the policy problem
4. Proposed contract	<ul style="list-style-type: none"> Thoughtful, critical, creative analysis 40 Proposed contract solidly based on principles Contract addresses specific aspects of the policy problem 	<ul style="list-style-type: none"> Solid analysis, but not critical or creative enough 32 Proposed contract solidly based on principles Contract addresses specific aspects of the policy problem 	<ul style="list-style-type: none"> Solid analysis, but not critical or creative enough 24 Proposed contract solidly based on principles Does not address specific aspects of the policy problem 	<ul style="list-style-type: none"> Poor analysis 16 Proposed contract not solidly based on principles Contract does not address specific aspects of the policy problem
5. Non-technical summary	<ul style="list-style-type: none"> Description non-technical 10 Proposed contract easy to understand, well-reasoned Example of contract specific enough 	<ul style="list-style-type: none"> Description non-technical 8 Proposed contract easy to understand, well-reasoned Example of contract specific enough 	<ul style="list-style-type: none"> Description fairly technical 6 Proposed contract easy to understand, well-reasoned Example of contract not specific enough 	<ul style="list-style-type: none"> Description too technical 4 Contract hard to understand, not well-reasoned Example of contract not specific enough
6. Writing and Exposition	<ul style="list-style-type: none"> A pleasure to read 10 Structured as requested Appropriate length 	<ul style="list-style-type: none"> Reads well 8 Not exactly structured as requested Appropriate length 	<ul style="list-style-type: none"> Reads OK 6 Not exactly always structured as requested Too long/short 	<ul style="list-style-type: none"> Difficult to read 4 Not structured as requested Too long/short