

Version A

1.(a) False.

(b) False. This is payment for e.g. gall bladder surgery regardless of the amount of inputs used.

(c) True.

(d) True.

(e) True. Life expectancy in 2018 is calculated using 2018 mortality rates in each age group.

(f) False. This is used in legal damages case, but not for health policy.

2.(a) (i) B (where have $U(E[X])$)

(ii) Risk-averse (since diminishing marginal utility of X)

(b)(i) $20,000 \pm 1.96 \times 10,000 \times \sqrt{400} = 20,000 \pm 980 = (\$19,020, \$20,980)$.

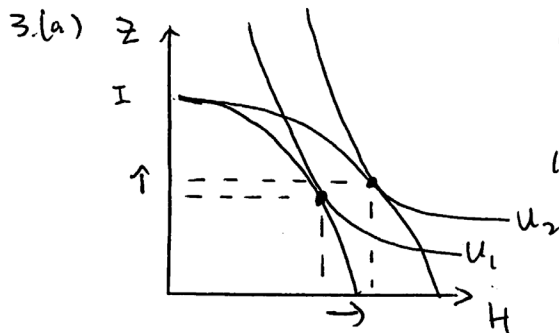
(Or could use $20,000 \pm 2 \times 10,000 \times \sqrt{400} = 20,000 \pm 1000 = (\$19,000, \$21,000)$.)

(ii) Value is no more than posted price, so uniform on (10,90) with $E[X] = (90+50)/2=70$. Since $U(50) = 1.5 \times 70 = 105 > 90$ will buy car.

(c)(i) Elasticity = $\frac{(550 - 750) / [(550 + 750)/2]}{(30 - 0) / [(30+0)/2]} = \frac{-200/650}{30/15} = \frac{-4/13}{2} = -2/13 = -.154$.

(you can also multiply by minus one, in which case the answer is 0.154).

(ii) Outpatient (the first category in Table 2)



(i) Health prodn. possibilities curve swings out (and by more at higher H where more m)

(ii) As drawn $Z \uparrow$ so out of pocket \downarrow
(But could draw so $Z \downarrow$ and out of pocket \uparrow)

(b) Cost: $100,000 \times \$10 + 0.9 \times 1000 \times \$100 + 0.1 \times 100,000 \times \$100 = 1,000,000 + 90,000 + 1,000,000 = \$2,090,000$ (or could instead have $0.1 \times 99,000 \times \100 unneeded tests giving $\$2,080,000$ total).

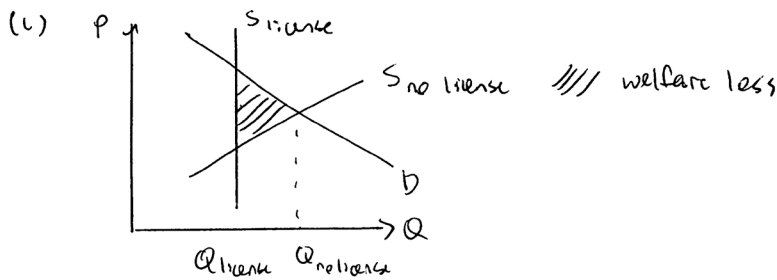
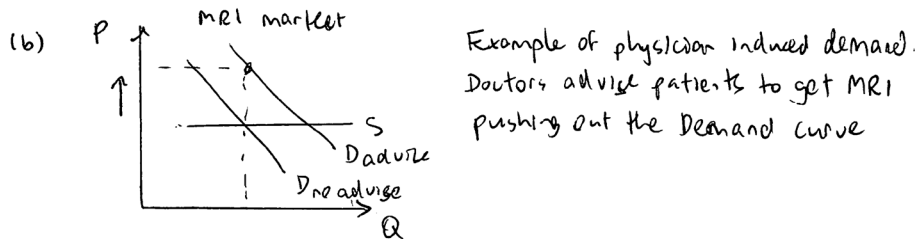
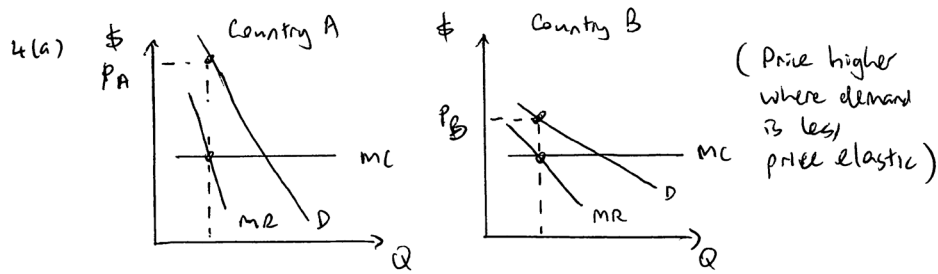
Benefit = $0.9 \times 1,000 \times \$10,000 = \$9,000,000$.

Do the test as benefit exceeds cost.

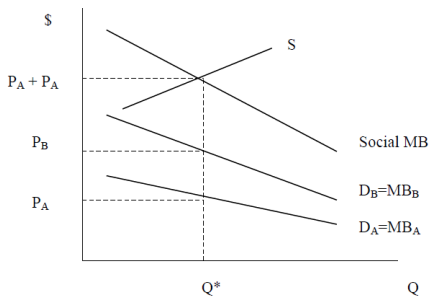
(c) .(a)(i) D + H + G. (This is an increase in expenditures).

(ii) D + H (This is a loss in welfare).

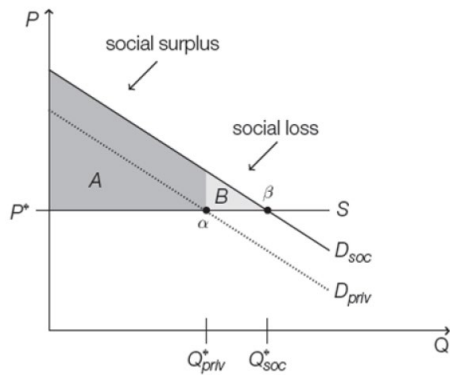
Econ 132 –Final Exam Solutions F19 Version A



5.(a) Optimum is point Q^*



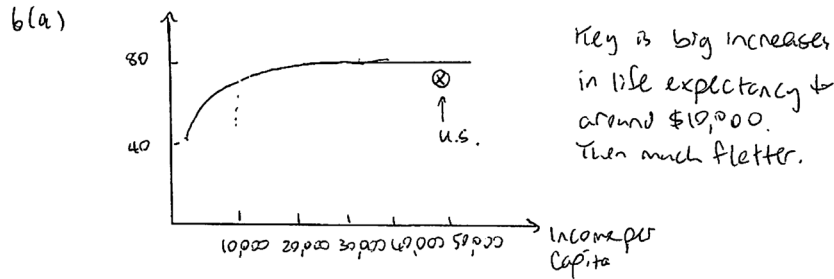
(b) Q^* price is less than Q^* soc. Welfare loss is social loss in diagram.



(c)(i) A 1% increase in life year gained is associated with a 0.986% increase in drug price.

(ii) The price of a drug per life year gained is increasing each year by 9.76%.

Econ 132 –Final Exam Solutions F19 Version A



(b)(i) Cost-benefit analysis.

(ii) Major medical innovations were worthwhile. Four had $MB > MC$ and one had $MB = MC$

(c)(i) Change for affected is $10 - 4 = 6$ and for not affected is $7 - 3 = 4$.

Difference in difference estimate is $6 - 4 = 2$.

Or .. Difference (affected vs. not affected) in 2000 is $10 - 7 = 3$ and in 1990 is $4 - 3 = 1$.

Difference in difference estimate is $3 - 1 = 2$.

(ii) d (the coefficient of the interaction variable.)

7.(i) Free care or 0% coinsurance

(ii) Average expenditures on the 50% coinsurance plan were on average \$434.68 less than on the 0% plan.

(iii) It was $434.68 - 378.85 = \$55.83$ more on average in the 50% plan than the 25% plan.

(iv) Yes. The $F(4,972)$ statistic has $p = 0.000 < 0.05$.

(v) No. (Reason: Get the same F statistic whichever category is the omitted category).

(vi) regress out_infl or mean out_infl will give this.

Multiple choice

Question

- 1 d The order is hospitals, physicians, pharmaceuticals
- 2 c Since health demand is the same regardless of price.
- 3 c Insurance company pays $0.8 \times (4000 - 1000) = 2400$
- 4 b The Miller and Luft study cited in the course notes.
- 5 a
- 6 a Any number of tests is better than none, but 2 or 3 are optimal.
- 7 b As in notes and assignment 1
- 8 b $ICER = 50000 - 20000$
- 9 d
- 10 d
- 11 b Once the drug ingredient is discovered it is public information
- 12 a
- 13 a Medicare has to cover drugs that are approved by FDA regardless of price
- 14 d
- 15 d
- 16 a
- 17 c Since health as % GDP rises as GDP rises the income elasticity of health is > 1
- 18 c

Econ 132 –Final Exam Solutions F19 Version A

Scores out of 60

75th percentile: 47.75 (80 %); Median: 44.5 (74 %); 25th percentile: 40.25 (67%)

Curve (Indication only: Course Grade is based on Total Score!)

Average GPA on curve 2.79

Out of 60

A	49 and above
A-	47.5 and above
B+	46 and above
B	44 and above
B-	42.5 and above
C+	41 and above
C	39 and above
C-	37.5 and above
D+	36 and above
D	34 and above
D-	32.5 and above