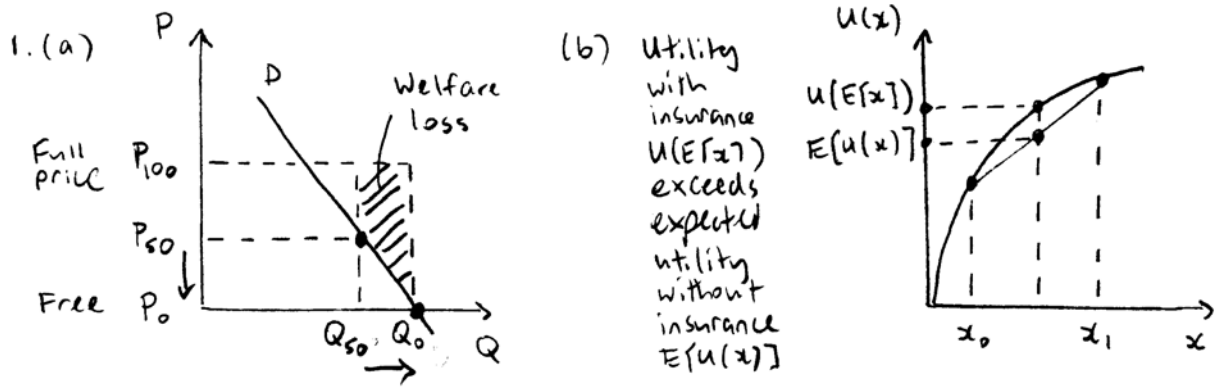
Econ 132 Fall 2008 FINAL EXAM (A): SOLUTIONS Cameron

Version A



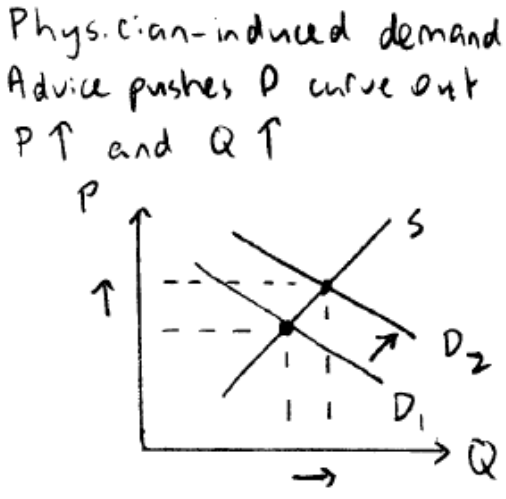
(c) t = [750-573]/sqrt(39^2+100^2) = 177/sqrt(11521) = 177/107 = 1.65 < 1.96.
Do not reject H_0: no difference. Conclude that the difference is not statistically significant at 5%.

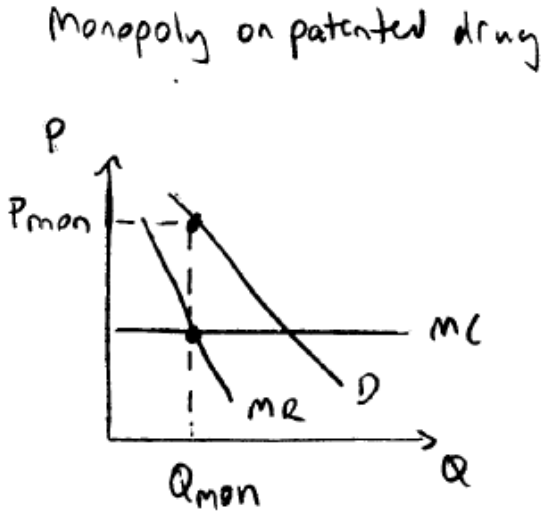
2.(a)(i) Fundamental contribution that one should do a marginal analysis, not a total analysis.
(ii) The optimal number of tests was 2 or 3, not the six originally recommended.

(b) Passive vs none: MC per QALY saved = ($40,000-$0)/(4x0.5–2x0.4) = $40,000/1.2 = $33,333.
Aggressive vs none: MC per QALY saved = ($200,000-$0)/(10x0.6–2x0.4) = $200,000/5.2 = $38,500. Prefer passive treatment to aggressive as lower MC per QALY saved.

(c)(i) This question is rather broad as includes PPO and HMO.
Gatekeeper, Preauthorization of hospitalization.
(ii) Costs reduced: A one-time drop of around 10% in health care costs, but now back on same upward trend. Quality little changed: Miller and Luft results suggest little change in quality.

3.(a) (c)





(b) Prospective payment means paid a fixed amount for treating a health problem (usually defined by DRG, e.g. tonsellictomy) regardless of amount of care provided to treat the problem.
Casemix means that the payment is adjusted for the severity of the case.
Provides incentive for hospital to be efficient.

4.(a) True Elderly are essentially all insured through Medicare.

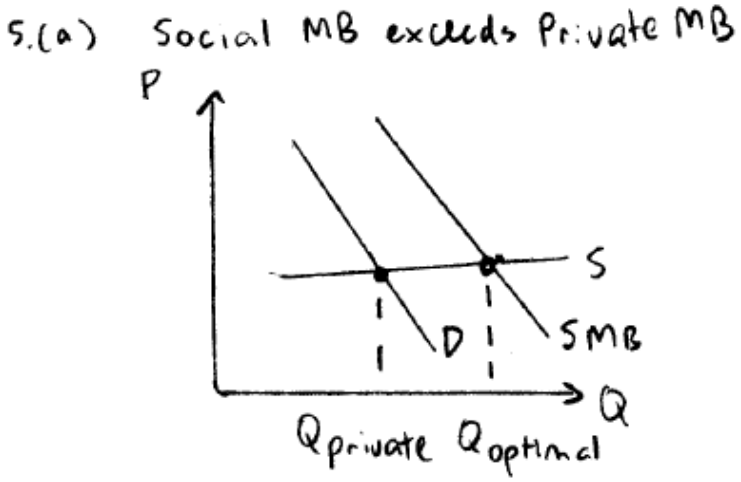
(b) False One could have managed competition between FFS insurers.

(c) False Patient bed days are little changed. Labor per bed day and wages have increased.

(d) False This is a glaring weakness of Medicare prescription drug purchase.

(e) False Time trends were not included. If included these would diminish the effect of restaurants.

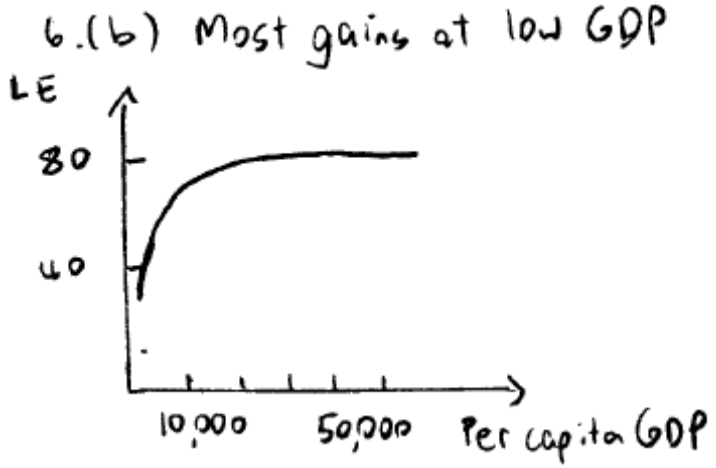
(f) True This is the definition.



(b) National Institutes of Health supports research – public goods.
U.S. Public Health Service prevents infectious diseases – externatilities.

(c) Medicare is for elderly whereas Medicaid is for poor.
Medicare is paid for by specific payroll tax (part of OASDHI) whereas Medicaid is paid for from general revenue.
Medicare is solely federal whereas Medicaid is joint federal / state.

6.(a) A year of life was viewed as costing $100,000. The undiscounted benefit is $1,200,000. Discounting 12 extra years at end of life at discount rate 3% yields much lower PDV = $240,000.



(c) The U.S. is the right-most data point, well above the line.
So infant mortality rates in the U.S. are much higher than those predicted

Econ 132 – F(A) Solutions

7.(a) Being obese has a big impact on health expenditures. For health services expenditure goes up by 30%, an effect even greater than that for aging. The effects are even larger for medications.

(b) Most of the increase in BMI (of 2.13) can be attributed to increase in the availability of restaurants (an effect of 1.40).

(c) We have BMI = other factors – 1.2 fast-food rest price + 0.14 fast-food rest price^2
So dBMI/dfastfoodprice = -1.2 + 0.28 × fastfoodprice = -1.2 + 0.28 × 2.90 = -0.388.
The elasticity (dy/y)/(dx/x) = -0.388 x 2.90 / 26 = -0.043.

Multiple choice

Ques:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Ans:	d	c	b	c	a	d	b	c	a	c	d	b	c	d	d	a	c	c

Explanations:

3. 5000 ± 2 × 5000/sqrt(100) = 5000 ± 2 × 5000/10 = 5000 ± 500.

6. Nonhealth goods expenditure and level of human capital (unintentionally a trick question).

8. Hospitals have few "profit centers" so less ability to cost shift to cover money-losing areas.

11. Govt ≈ 45% of health expenditures of $2.2 trillion. This is mostly Medicare / Medicaid.

13. Life expectancy increased considerably in the 1800's, and even more in the 1900's.

16. Obestity rates doubled from 15% in 1980 to 30% today.

17. Health care is superior as Health/income up as income up implies elasticity wrt income > 1.

Scores out of 60		**Curve (Indication only: Course Grade is based on Total Score!)**			
75th percentile	46.5 (78 %)	A+	54 and above	C+	40.5 and above
Median	43.5 (73 %)	A	48.5 and above	C	38.5 and above
25th percentile	39.5 (66 %)	A-	47 and above	C-	37 and above
		B+	45.5 and above	D+	35.5 and above
		B	43.5 and above	D	33.5 and above
		B-	42 and above	D-	32 and above