

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2000**

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**Instructions:**

- You have 2 hours, 45 minutes to complete this exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 200.
- You should have 7 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 3 for the right answer, and 7 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. Workers in the fishing industry have been doing very poorly in some areas. Assume that the demand for fish is highly inelastic.

T, F, and Explain: **One way to help workers in the fishing industry would be to provide low-interest loans on new boats and other fishing equipment.**

2. Suppose that all workers in an economy are equally able, but some are unemployed due to a fixed nominal minimum wage.

T, F, and Explain: **Both inflation and rising marginal physical productivity will tend to reduce the unemployment rate.**

3. T, F, and Explain: **Economic growth actually makes slavery less likely to simply die out on its own due to unprofitability.**

4. An economist finds that workers earn 25% more for each year of education. After adjusting for the cost of schooling, he finds that the return to education is still 15%, compared to 8% for non-educational investments with the same risk level. One implication, the economist argues, is that increased government subsidies for education would be efficiency-enhancing.

T, F, and Explain: **The economist is making an externalities argument.**

Questions 5 and 6 refer to the following diagrams.

Suppose there are only two states, West and East. Each has a state income tax.

5. T, F, and Explain: **Diagram 1 could show the effects on West's labor markets of a labor tax increase in East.**

6. T, F, and Explain: **Diagram 2 could show the effects of similar tax reductions in *both* West and East.**

7. T, F, and Explain: Krugman ("The Lost Fig Leaf") argues that drastically reducing the federal budget would be popular but unfair.

8. Suppose George Mason decides to start giving tenure to assistant professors as soon as it hires them.

T, F, and Explain: The quantity of assistant professors hired will definitely increase, but their salaries could either rise or fall.

9. T, F, and Explain: Data from the NLSY shows that the black-white labor income gap becomes statistically insignificant after controlling for education and family status.

10. T, F, and Explain: Non-profit organizations are more likely to *statistically* discriminate.

11. "It might seem that locking parents into a miserable marriage, by making divorce impossible, would condemn the children to misery too." (Posner, *Economic Analysis of Law*)

T, F, and Explain: **Posner argues that because the marriage market is competitive, "miserable marriages" will be very rare.**

12. Presidents often ask for the resignation of high-ranking officials when something goes wrong, even if they have no specific evidence that these officials were to blame for the problem.

T, F, and Explain: **As a method of deterrence, this makes no economic sense.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. Suppose male and female employees are equally productive when employed, being worth \$20/hr, and work 2000 hours/year. But 20% of female employees (and 0% of males) under the age of 30 plan on leaving work to have children, costing their employers \$20,000 in re-training expenses. Diagram the market for male and female labor if employers statistically discriminate. How does the equilibrium female wage compare to the equilibrium male wage? How would the market respond if the government imposed an "equal pay for equal work" rule?

2. "[Y]ou can't always pursue two goals - in this case income redistribution and an attractive population - simultaneously." (Landsburg, *Fair Play*) Explain the economic reasoning behind this statement; in particular, carefully state why some forms of redistribution would hurt people's incentive to be good-looking.

3. Building on all you have learned this semester about the private and social return to education, describe what you judge to be the most **efficient** education policies for government to adopt. (You don't have to actually support these policies; efficiency isn't everything). *Be sure to relate your policy conclusions to both the empirical evidence and theoretical arguments from class.* Is there any difference between efficient policies for K-12 versus college?

4. Caplan argues that the "standard views" on many issues (labor, the welfare state, discrimination, and gender) are deeply wrong. Pick what you judge to be the *most-defensible* "standard view" he attacked. Using economic arguments, explain as forcibly as possible why the standard view is right and Caplan is wrong.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2001**

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**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. Imagine a horrible war leads to a large decline in worker productivity throughout the world.

**T, F, and Explain: On average, workers will earn lower wages, especially in industries like farming where product demand is highly inelastic.**

2. Suppose that all workers in an economy are equally able, but there is a labor shortage due to a fixed nominal maximum wage.

**T, F, and Explain: Inflation, but not rising marginal physical productivity, will tend to reduce the labor shortage.**

3. Suppose that interest rates fall in a slave economy.

**T, F, and Explain: Demand for slaves rises, but in the long-run the supply of slaves will probably rise as well.**

4. T, F, and Explain: **ALL of the following are reasons why simply comparing average earnings of people with different education levels *overstates* the return to education: (1) they fail to control for intelligence; (2) they ignore the cost of tuition; (3) the marginal return is lower than the average return.**

5. T, F, and Explain: **If labor is immobile, *lump sum* taxes increase labor supply if product demand is elastic, but decrease labor supply if product demand is inelastic.**

6. T, F, and Explain: **Even if a proportional income tax has no effect on hours worked, a progressive income tax still could.**

Questions 7 and 8 refer to the following information.

Employers cannot tell how productive a worker is, but they CAN tell whether a worker has a college degree, and they know the **AVERAGE** value of workers with and without college degrees. Competition forces them make worker pay equal their average PDV. There are four workers. The PDV of their lifetime labor is as follows:

Worker #	1	2	3	4
\$ PDV	500,000	1,000,000	1,500,000	3,000,000

7. T, F, and Explain: **The following table contains one mistake.**

Worker #'s w/ College Degrees	Without College PDV	With College PDV	College Premium
1-4	--	1,500,000	--
2-4	500,000	1,833,333	1,333,333
3-4	750,000	2,250,000	1,500,000
4	1,000,000	3,000,000	2,000,000
none	2,000,000	--	--

8. Suppose you are worker #1. All of the other workers are going to college.

T, F, and Explain: **You will choose to attend college as long as the PDV of the total cost (tuition plus foregone earnings) is less than 1,833,333.**

9. "[E]ven among uneducated and unskilled rubber plantation laborers in colonial Malaya, those who were Chinese produced more than double the output of those who were Malay. Not surprisingly, the Chinese earned more than double the income of Malays." (Sowell, *Race and Culture*)

T, F, and Explain: **Sowell is distinguishing between wage differences and wage discrimination.**

10. Suppose that Israeli workers have a taste for discrimination against Palestinian workers.

T, F, and Explain: **The economic theory of discrimination predicts that employers in racially mixed areas will still ignore ethnicity altogether.**

11. T, F, and Explain: **Discrimination is more likely to persist in the marriage market than it is in labor markets.**

12. The U.S. will probably get much richer during the next century.

T, F, and Explain: **We should expect the number of car thieves to fall: The *supply* of car thieves will fall as wages in the legal sector rise, but there is no reason to expect *demand* for car thieves to rise.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. "[A]dmitting that foreigners are human would only strengthen the argument's conclusion, so in that sense no harm is done by pretending otherwise. The pretense may even serve some rhetorical value; we ostentatiously ignore the most obvious beneficiaries of open borders and can *still* conclude that open borders are a good thing." (Landsburg, *Fair Play*)

Carefully explain how *Landsburg's* argument for open borders compares to the *standard* argument that he is criticizing.

2. Consider the various estimates of the return to education from before the midterm. How does the signalling theory of education suggest these estimates should be interpreted? Carefully distinguish between the private and the social return to education.

3. Are there any groups protected under current discrimination laws that would - **on average** - probably benefit if employers were legally required to hire employees based solely on IQ tests? Carefully explain your answer.

4. Suppose you are studying the child care arrangements of gay couples who have adopted children. What would the economics of the family predict about their division of labor? Explain the similarities to and differences with the economic analysis of traditional families.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2002**

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**Instructions:**

- You have 2 hours, 45 minutes to complete this exam.
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- Partial credit may be awarded on all questions.
- The maximum possible number of points is 200.
- You should have 7 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. Suppose the government imposes a \$20/hour minimum wage.

**T, F, and Explain: With their increased income, low-skill workers will be more likely to select "fun" occupations.**

2. Suppose a union of farm workers manages to impose work rules that greatly reduce agricultural productivity (for example, by banning tractors).

**T, F, and Explain: This will reduce the demand for workers in general, and farm workers in particular.**

3. "OSHA might, therefore, simply raise the level of occupational safety and health to the level at which it would be" [under laissez-faire]. (Posner, *Economic Analysis of Law*)

**T, F, and Explain: Posner blames pro-union laws for reducing the level of worker safety.**



4. People with more education tend to have higher IQs, but it is usually illegal for employers to administer IQ tests.

T, F, and Explain: **Caplan argues that since education is mostly signalling, legalizing IQ tests would drastically reduce the demand for education.**

5. Welfare programs often impose a 100% marginal tax rate on recipients.

T, F, and Explain: **The recipients would be better off if they simply did not participate in the program.**

Questions 6 and 7 refer to the following information.

You are the head of the hiring committee for the economics department, and are deciding how many job candidates to fly out. You value your time at \$50/hour, and it takes a 6 hours to process a candidate. If you find someone who is "good enough for the position" it is worth \$1000. Your searching abilities are as follows:

<b>Total Time Spent (hours)</b>	<b>Chance of Finding Someone Good Enough</b>	<b>Expected <i>Marginal</i> Benefit of Search</b>
6	50%	\$500
12	75%	\$750
18	80%	\$800
24	85%	\$850

6. T, F, and Explain: **The last column of this table is correct.**

7. T, F, and Explain: **You will only fly out one candidate.**

8. T, F, and Explain: **Markets may not eliminate employer-on-worker discrimination if all employers have identical tastes for discrimination.**

9. The NLSY classifies people as white, black, or "other non-white."

T, F, and Explain: **Statistical evidence from the NLSY suggests that "other non-whites" might have benefited from discrimination laws.**

10. Suppose that 10% of all women say they do not want to have children and intend to focus entirely on their careers, but only one in ten of the women who say this actually mean it.

T, F, and Explain: **Statistical discrimination may prevent women from even being interviewed for highly demanding jobs.**

11. Technology has not just increased the supply of female labor by reducing the time required for household production. It has also increased the demand for female labor by making them more productive workers.

T, F, and Explain: **Technology has increased the demand for female labor MORE than it has increased the demand for male labor.**

12. T, F, and Explain: **Tourists in Third World countries probably have no effect on the supply of crime.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. Worker-owned firms, often known as "workers' cooperatives," are rare. Keeping in mind the different economic functions of employers, explain why this is so. What exactly do workers prefer to "buy" from employers instead of their fellow workers?

2. "No one who agonizes about the national debt can consistently support income redistribution among the living." (Landsburg, *Fair Play*) Why does Landsburg say this? Carefully explain his argument.

3. Give one example of taste-based discrimination in slave markets, and another example of statistical discrimination in slave markets. (Historical examples from Sowell are better, but imaginary examples are OK). Compare and contrast the effect of these two forms of discrimination from the slaves' point of view.

4. More educated people are usually considered more marriageable. Does this raise the private return to education? The social return? Is education desired for its own sake, or is it merely a signal of other desirable attributes? Explain your answer.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2003**

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**Instructions:**

- You have 2 hours to complete this exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 150.
- You should have 6 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. Suppose the government imposes a \$20/hour maximum wage.

T, F, and Explain: **There will be an increase in ALS and a decrease in ALD.**

2. Unions not only push wages up above market-clearing levels; they also usually try to equalize members' wages.

T, F, and Explain: **Both of these efforts undermine market checks on taste-based discrimination by employers.**

3. Suppose a worker lives for three periods. If he goes to school in period one, he earns zero in period 1, \$10,000 in period 2, and \$10,000 in period 3. If he does not go to school in period one, he earns \$6000 in all three periods.

T, F, and Explain: **With an interest rate of 10%, going to school is a profitable investment, even if tuition is \$2000.**

4. T, F, and Explain: According to Krugman, the main "right-wing wrong" is the false assumption that federal income taxes have a substitution effect but no income effect.

5. T, F, and Explain: The natural rate of unemployment would – all else equal - be lower in an economy with no economic growth.

6. Caplan argues that the "standard view of the welfare state" is wrong.

T, F, and Explain: One of its main errors is the claim that bigger welfare programs encourage more immigration.

7. Suppose the typical firm's finances look like:

10 male workers @ \$100,000	\$1,000,000
0 female workers @ \$70,000	\$0
Bondholders	\$0
<b>Stockholders</b>	<b>\$200,000</b>
Total	\$1,200,000



**T, F, and Explain: Assuming that the male-female pay gap is 50% taste-based discrimination and 50% statistical discrimination, a non-discriminatory employer could more than double his profits.**

8.

**T, F, and Explain: The preceding diagrams accurately show the effect of modern technology on women's value relative to men's in both the job market and the marriage market.**

9. **T, F, and Explain: In today's society, the social benefits of high IQ may be much less than the private benefits of high IQ.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. Taking into account everything you have learned in this class, how much do you expect to gain from earning an undergraduate degree – financially and otherwise? Explain using relevant information from your own personal situation.

2. Relying on Landsburg's analysis of the effects of population growth, diagram the effect of improved birth control today on Aggregate Labor Markets one hundred years from now. Explain.

3. What would Caplan predict would happen to women and minorities if laws against discrimination were abolished? To what extent is he correct? Carefully explain your reasoning.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2004**

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**Instructions:**

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- The maximum possible number of points is 150.
- You should have 6 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. If a worker makes 10 units of a product that will sell for \$5 each six months from now, his employer will normally pay him less than \$50.

**T, F, and Explain: The employer is taking advantage of the worker because he pays him less than his MVP.**

2. Suppose the government imposes a \$20/hour minimum wage.

**T, F, and Explain: There will be a surplus of labor and ALS will increase.**

3. "Among the many negative aftermaths of slavery has been a set of counterproductive attitudes toward work, among both the slaves and their descendants and the non-slave members of slave societies and their descendants... [I]n Malaya, where manual labor was associated with slavery, an observer in Malacca said: 'You will not find a native Malay who will carry on his back his own or any man's property, however much you may offer him for doing so.'" (Sowell, *Race and Culture*)

**T, F, and Explain: This passage is consistent with the idea that – because they do not have to be paid a compensating differential - slaves are especially likely to do safe but unpleasant work.**

4. Suppose education is 100% signaling, and students have to pay tuition.

T, F, and Explain: A **proportional** income tax would reduce the incentive to acquire education, and thereby increase the efficiency of the market for education.

5. T, F, and Explain: Landsburg argues that cutting welfare is sometimes entirely fair.

6. T, F, and Explain: At minimum, discrimination laws give employers an incentive to hire minority workers and see if they work out.

7. Controlling for IQ, blacks actually have more years of education than the average white. Now suppose an employer has to choose between two workers. Both have masters degrees, but one is white and the other is black.

T, F, and Explain: **If it is illegal to administer IQ tests, an employer who practices statistical discrimination will hire the black worker.**

8. When there is a lot of household production to do, economics can explain why it makes sense to have one member of a married couple specialize in household production.

T, F, and Explain: **However, economics cannot explain why that "one member" is usually the wife, rather than the husband.**

9. T, F, and Explain: **The loser-pays rule always discourages people from filing lawsuits.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. What kinds of labor market regulation are *least* economically objectionable? Explain your answer.

2. The ratio of black income to white income started rising years before any civil rights laws were passed. Does this show that *discrimination* against blacks has become weaker over time? Why or why not?



3. Under a military draft, married men are often exempt. Using supply-and-demand diagrams for the marriage market, show the effect of this exemption from both the "men's perspective" and the "women's perspective." Be careful to correctly label both diagrams.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2005**

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**Instructions:**

- You have 90 minutes to complete this exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. Suppose workers dislike taking orders from a boss; they prefer to be self-employed.

T, F, and Explain: **Hired employees get a compensating differential and earn more than their MVP.**

2. Suppose the government imposes a \$20/hour minimum wage.

T, F, and Explain: **There will be a surplus of labor, but ALS does not shift.**

3. T, F, and Explain: **Landsburg would disagree with Caplan's claim that "the standard view of the welfare state is wrong."**

4. Suppose an employed person is considering whether to search for a higher-paying job. The only cost of search is time.

T, F, and Explain: **A proportional income tax reduces the amount that the worker chooses to search.**

5. T, F, and Explain: **The earnings difference between men and women disappears if you simply control for intelligence.**

6. Suppose women find criminals more attractive than other men.

T, F, and Explain: **The result would be that the level of crime and criminals' earnings increase.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. Suppose there is a farming village where men work in the fields and women do household production. If the demand for food goes up, what happens in (a) the market for farm labor and (b) the village marriage market? Carefully explain your answer. Make sure that your diagrams are clearly labeled.

2. State and explain a theoretical EXCEPTION to the rule that market forces eliminate discrimination. Use an example from Thomas Sowell (*Race and Culture*) to illustrate your answer.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2006**

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**Instructions:**

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- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. T, F, and Explain: **Krugman's *The Accidental Theorist* shows that economists deeply disagree about the effects of labor market regulation.**

2. Some unions impose work rules that reduce the MPP of labor (for example, a rule that only a licensed electrician is allowed to change a lightbulb).

T, F, and Explain: **This is never in the self-interest of union members.**

3. T, F, and Explain: **Statistical discrimination reduces the return to education for members of groups with below-average productivity.**

4. *Inside* the European Union, there is free migration, but labor markets are heavily regulated.

T, F, and Explain: **Under these conditions, discrimination against "foreigners" (for example, discrimination by German employers against Italian workers) is relatively cheap, which in turn reduces the level of international migration.**

5. Landsburg (*Fair Play*) argues that there are positive externalities of having children.

T, F, and Explain: **Subsidizing education helps correct this externality – even if education is just signaling.**

6. T, F, and Explain: **Raising income taxes causes crime.**



**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. Caplan argues that four "standard stories" (of labor, the welfare state, discrimination, and gender) are wrong. For which of these four stories does Caplan *most over-state* his case? Explain your answer.

2. Suppose the "men's rights" movement persuades men that every man "deserves the very best" from the woman in his life, and should settle for nothing less. Diagram the effect of this "men's rights" norm on the marriage market *from the female point of view*. (Carefully label your diagram!) Who benefits from the men's rights movement? Who loses?

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2007**

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**Instructions:**

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- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. T, F, and Explain: **Bastiat (*Economic Sophisms*) argues that reducing labor productivity makes everyone poorer.**

2. Suppose that immigrants have lower average IQs than native-born Americans.

T, F, and Explain: **Immigration makes native-born Americans poorer by reducing workers' average IQ.**

3. T, F, and Explain: **Social Security taxes have little effect on labor supply because Social Security payments are a “return on investment” rather than true redistribution.**

4. Suppose that: college-age workers earn \$15,000 per year; one year of college tuition \$10,000; one year of college raises your annual earnings by \$5000 for the rest of your life; and education is 50% signaling.

T, F, and Explain: **The private return to education is approximately 20%.  
The social return to education is approximately 15%.**

5. Suppose that due to anti-foreign prejudice, immigrants earn 20% less than equally qualified natives. A firm that hires only immigrants has the following balance sheet:

10 immigrants	@ \$40,000	\$400,000
Bondholders		\$250,000
<b>Stockholders</b>		<b>\$350,000</b>
Total		\$1,000,000

T, F, and Explain: **Replacing all of the immigrants with natives would decrease stockholder's rate of return by 40%.**

6. T, F, and Explain: **Putting more men in jail reduces the amount of housework that (unjailed) married men are expected to do.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. The government passes a law requiring employers to give free health insurance to all of their workers. Assuming wages freely adjust, what effect would economists expect this law to have on the welfare of the typical worker? Why exactly do they expect this?

2. People usually marry within their own ethnicity, suggesting that people have a “taste for discrimination” in the marriage market. Is competition as effective at controlling discrimination in the marriage market as it is in the labor market? Why or why not?

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2008**

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**Instructions:**

- You have 90 minutes to complete this exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. Right now, jetpacks are only sold to a small luxury market. Suppose the number of jetpacks a worker could produce in an hour greatly increased.

T, F, and Explain: **Wages for jetpack workers would rise.**

2. Suppose native-born Americans and immigrants have exactly the same skills.

T, F, and Explain: **Immigration will raise Americans' average standard of living, but reduce their wages.**

3. T, F, and Explain: **Landsburg's Grandfather Principle (*Fair Play*) says that we should admit more immigrants, but charge them higher taxes to compensate low-skilled Americans for the increase in labor market competition.**

4. T, F, and Explain: **Thomas Sowell (*Race and Culture*) argues that market forces tend to eliminate workplace segregation.**

5. The ratio of young female college graduates to young male college graduates has sharply risen in recent years.

T, F, and Explain: **This decreases the demand for men and increases the demand for women.**

6. T, F, and Explain: **The economically optimal quantity of crime is zero.**



**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer all of the following questions.

1. Suppose there is involuntary unemployment in an unregulated labor market. Use a diagram to show how government regulation of wages could *restore* full employment. Why don't actual governments adopt such regulations during periods of high unemployment?

2. Are Caplan's "selfish reasons to have more kids" more compelling for highly educated couples? Carefully explain your answer.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2010**

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**Instructions:**

- You have 75 minutes to complete this exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. T, F, and Explain: **Additional immigration always reduces natives' wages.**

2. Suppose slavery were still legal.

T, F, and Explain: **Economic growth and modern technology would have eliminated slavery by reducing the price of slaves to zero.**

3. Suppose that: college-age workers earn \$15,000 per year; one year of college tuition \$10,000; one year of college raises your annual earnings by \$5000 for the rest of your life; and education is 50% signaling.

T, F, and Explain: **The private return to education is approximately 5%. The social return to education is approximately 2.5%.**

4. Suppose that due to anti-foreign prejudice, immigrants in Japan earn 20% less than equally qualified natives, even though 99% of their workforce is native-born. A typical firm has the following balance sheet:

100 natives	@ \$40,000	\$4,000,000
1 immigrant	@ \$32,000	\$32,000
Bondholders		\$500,000
<b>Stockholders</b>		<b>\$500,000</b>
Total		\$5,032,000

T, F, and Explain: **This example shows that market forces are especially effective at reducing discrimination when the fraction of victims is small.**

5. Many employers provide free or nearly free health insurance for their workers' spouses and children.

T, F, and Explain: **This could reflect *statistical* discrimination in favor of married workers with large families.**

6. Before the 20<sup>th</sup> century, marital law often forbade married women to work without their husbands' permission.

T, F, and Explain: **This law increase the supply of husbands, reduced the demand for husbands, and thereby raised the price of wives.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer both of the following questions.

1. Women and minorities traditionally have higher unemployment rates than white males. Suppose you had detailed data on ten thousand individual workers. How would you test whether the differences in unemployment rates are caused by laws *against* discrimination? Carefully explain how your test works, and list at least three control variables you think you should include.

2. Explain the economics behind Caplan's argument for having more kids. Has he convinced you to modify your parenting philosophy or desired family size? Why or why not?

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2011**

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**Instructions:**

- You have 75 minutes to complete this exam.
- Write all answers directly on the exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. Suppose scientists invent an affordable robot for household cooking and cleaning.

**T, F, and Explain: Workers' overall wages would fall, and the price of men in the marriage market would rise.**

2. Some opponents of illegal immigration favor a large increase in the minimum wage, combined with harsh punishments for employers who pay below minimum wage.

**T, F, and Explain: This would increase unemployment for all workers, but with an especially large effect on illegal immigrants.**

3. **T, F, and Explain: The signaling model of education implies that high income taxes are less inefficient than they seem.**

4. Suppose that straight workers (but not straight employers) strongly dislike gays. Assume that gay and straight workers are equally productive, and there are no anti-discrimination laws.

T, F, and Explain: **Employers will ignore straight workers' preferences because they conflict with profit-maximization.**

5. Some strongly disliked minorities, like the Jews in pre-war Germany and the Japanese in post-war America, actually earned *above-average* incomes.

T, F, and Explain: **This proves that discrimination had no effect on the disliked minorities' earnings.**

6. Evolutionary psychologists often say that women are "hypergamous."

T, F, and Explain: **If evolutionary psychologists are correct, women's increasing educational and financial success will definitely increase the demand for "high-quality" men, but could easily decrease the demand for "low-quality" men.**



**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer both of the following questions.

1. Imagine I gave everyone in Labor Economics a grade of “A.” How would this affect my students’ future careers according to (a) human capital theory, and (b) the signaling model?

2. “*Selfish Reasons to Have More Kids* implies that the ‘most rational’ parents in America are the Amish, who have eight children on average.” Is this a correct reading of Caplan’s main argument? Why or why not?

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2012**

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**Instructions:**

- You have 75 minutes to complete this exam.
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- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. T, F, and Explain: **Krugman's *The Accidental Theorist* shows that economists largely agree about the effects of labor market regulation.**

2. The (non-profit) military provides teaches its employees a lot more general job skills than most for-profit employers.

T, F, and Explain: **This is precisely what you would expect, because for-profit employers have no incentive to teach general job skills.**

3. Most people think that redistribution is altruistically motivated.

T, F, and Explain: **In the real world, however, redistribution seems carefully designed to serve the selfish goal of reducing crime.**

4. Suppose a year of education increases your marginal product by 2% but increases your income by 10%. Tuition is free and there is a 50% proportional tax.

T, F, and Explain: **Your private return to education is 5%, but your social return to education is 1%.**

5. Skilled foreigners rarely *illegally* work in the United States even though it is fairly easy for them to legally *travel* to the United States.

T, F, and Explain: **The economics of discrimination has a simple explanation for this fact.**

6. "Perhaps the most popular selfish explanation for smaller families, though, claims that people used to have children to support them in their old age." (Caplan, *Selfish Reasons to Have More Kids*)

T, F, and Explain: **Caplan is blaming Social Security for declining family size.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer both of the following questions.

1. Some sociologists have argued that discrimination on the basis of educational credentials should be illegal. What do the human capital and signaling models of education predict about the effect of such a law?

2. The famous statistician Karl Pearson opposed Jewish immigration to England on the following grounds: "What is definitely clear, however, is that our own Jewish boys do not form from the standpoint of intelligence a group markedly superior to our natives. But that is the sole condition under which we are prepared to admit that immigration should be allowed." How would Caplan respond? Who is right?

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2013**

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**Instructions:**

- You have 75 minutes to complete this exam.
- Write all answers directly on the exam.
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- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. T, F, and Explain: **Raising the minimum wage has a smaller disemployment effect for low-skilled workers in unpleasant occupations.**

2. T, F, and Explain: **Clemens (“Trillion-Dollar Bills on the Sidewalk”) concludes that free global migration would increase global GDP by \$1-3 trillion dollars per year.**

3. Suppose Virginia imposes a \$10,000/person head tax, and spends the money on the world’s most luxurious governor’s mansion.

T, F, and Explain: **Labor supply in Virginia will definitely increase.**

4. Controlling for IQ, education, and family status, white and black labor income is almost equal. If you look closer at the data, however, less-educated whites outearn less-educated blacks, but more-educated blacks outearn more-educated whites.

T, F, and Explain: **This is consistent with both statistical discrimination and “reverse discrimination.”**

5. “I can train graduate students to become professors. No magic there; I’m teaching them the one job I know. But what about my thousands of students who won’t become economics professors? I can’t teach what I don’t know, and I don’t know how to do the jobs they’re going to have. Few professors do.” (Caplan, “The Magic of Education”)

T, F, and Explain: **Caplan is arguing that going to college rarely helps students get a job.**

6. Suppose the U.S. adopted open borders.

T, F, and Explain: **In the market for mates, native-born men would gain more than native-born women.**



**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer both of the following questions.

1. Name a labor market regulation likely to have its *intended* effect *without* significant negative side effects. Carefully explain your reasoning. The regulation need not actually exist, as long as it would work well if tried.

2. "New ideas come from *people* – especially smart, creative people." (Caplan, *Selfish Reasons to Have More Kids*) Use ALS-ALD diagrams to show why the long-run effect of higher population is better for workers than the short-run effect. Carefully explain your diagrams.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2014**

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**Instructions:**

- You have 75 minutes to complete this exam.
- Write all answers directly on the exam.
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- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. Suppose the economy is in a deep recession.

**T, F, and Explain: Imposing a maximum wage will reduce unemployment as long as the maximum is low enough.**

2. "Imagine several cities, all suffering from housing shortages because of rent control, agree to make it easier for landlords in one city to own buildings in another." Paul Krugman, *The Accidental Theorist*

**T, F, and Explain: Krugman is arguing that labor market deregulation will fail to alleviate France's labor shortage.**

3. Suppose an employed person is considering whether to search for a higher-paying job during his free hours. The only cost of search is time, but the would-be job hunter dislikes job search more than he dislikes work.

**T, F, and Explain: A proportional income tax will reduce the time the worker devotes to search.**

4. Suppose I unexpectedly give everyone in Labor Economics an A+ in the course.

T, F, and Explain: **Signaling says this will make it easier for you to get a good job; human capital theory says it won't.**

5. T, F, and Explain: **In the modern U.S., employment discrimination laws function like price controls, with little effect on labor demand for protected groups.**

6. "This brings us to my last un-Beckerian explanation for small families: Changes in foresight."  
(Caplan, *Selfish Reasons to Have More Kids*)

T, F, and Explain: **Caplan argues that low modern fertility is caused by modern people's extremely high foresight.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer both of the following questions.

1. Married men out-earn single men by about 40% after controlling for education, experience, IQ, race, and number of children. Is this convincing evidence that labor markets discriminate in favor of married men? Using everything you've learned, justify your answer.

2. Simple estimates say that open borders would roughly double global GDP by moving workers from low-productivity countries to high-productivity countries. What are some reasons to think that these simple estimates understate the economic benefits of open borders? (Hint: How is higher immigration like higher fertility?)

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2015**

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**Instructions:**

- You have 75 minutes to complete this exam.
- Write all answers directly on the exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. During the 20<sup>th</sup> century, the fraction of women in the U.S. workforce sharply increased.

**T, F, and Explain: This was clearly bad for the average male American worker because it increased Aggregate Labor Supply.**

2. **T, F, and Explain: It is economically efficient for government to provide necessities like food, health care, and housing free of charge.**

3. "Cheating on exams is only cheating yourself."

**T, F, and Explain: The human capital model of education agrees; the signaling model of education disagrees.**

4. “During the era of mass immigration to the United States, American employers discovered that putting Irish and Italian immigrants in the same work crew produced a high probability of violence, especially if these were jobs that required the workers to live together for long periods of time – in crews constructing railroads or canals, for example.” (Sowell, *Race and Culture*)

**T, F, and Explain: The result, Sowell explains, was that railroads and canals rarely employed Italian workers.**

5. Suppose women’s wages go up.

**T, F, and Explain: The effect on child-bearing is unclear because the income and substitution effects move in opposite directions.**

6. **T, F, and Explain: Looking at market prices tells us nothing about the NET externalities of population.**



**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer both of the following questions.

1. How would Krugman (*The Accidental Theorist*, pp.52-65) react to Caplan on “Why the Standard View of the Welfare State Is Wrong”? Base your answer as closely as possible on Krugman’s actual words, and be specific!

2. Suppose that the government decides to “overcome the legacy of racial and gender discrimination” by setting the minimum wage for non-whites and women 50% above the minimum wage for white males. What are the likely effects of this legislation?

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall, 2016**

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**Instructions:**

- You have 75 minutes to complete this exam.
- Write all answers directly on the exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. T, F, and Explain: **Krugman's *The Accidental Theorist* shows that liberal economists rarely question the social benefits of labor market regulation.**

2. “This distinction between physical and language skills turns out to be empirically important. When immigration increases, native workers really do respond by switching to more language-based occupations...” (Caplan, “Why Should We Restrict Immigration?”)

T, F, and Explain: **Immigration can actually raise wages for natives, even if they DON'T switch occupations.**

3. T, F, and Explain: **Giving everyone free health insurance reduces labor supply.**

4. Suppose the typical firm's finances look like:

10 male workers @ \$100,000	\$1,000,000
0 female workers @ \$70,000	\$0
Bondholders	\$0
<b>Stockholders</b>	<b>\$200,000</b>
Total	\$1,200,000

T, F, and Explain: **Assuming that the male-female pay gap is 50% taste-based discrimination and 50% statistical discrimination, a non-discriminatory employer could increase his profits by 75%.**

5. T, F, and Explain: **Standard economic arguments for the unimportance of taste-based discrimination in labor markets predict that such discrimination will also be unimportant in mating markets.**

6. Caplan criticizes population policies that try to maximize per-capita GDP.

T, F, and Explain: **Caplan argues that such policies, though economically efficient, violate individuals' freedom to have as many children as they like.**

**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer both of the following questions.

1. “If you’re optimistic about free markets’ likelihood of reducing pollution, you should be *pessimistic* about free markets’ likelihood of reducing discrimination.” Why exactly would someone believe this statement? Is it true? Carefully explain your reasoning.

2. Marrying an American is one of the easiest ways for a foreigner to become an American citizen. Use a supply-and-demand for mates diagram to explain why we should expect Americans to *frequently* marry foreigners. Then use information economics to explain why “immigration marriages” are, in fact, rare.

Name: \_\_\_\_\_

**Economics 321 Final**  
**Prof. Bryan Caplan**  
**Fall 2017**

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**Instructions:**

- You have 50 minutes to complete this exam.
- Write all answers directly on the exam.
- You may use any books, notes, or other materials that you wish, but avoid spending too much time on any one question.
- Partial credit may be awarded on all questions.
- The maximum possible number of points is 100.
- You should have 4 pages, counting this one.

**Part 1: True, False, and Explain****(10 points each - 2 for the right answer, and 8 for the explanation)**

State whether each of the following six propositions is true or false. In 2-3 sentences (and clearly-labeled **diagrams**, when helpful), explain why.

1. T, F, and Explain: **Landsburg's Grandfather Principle (*Fair Play*) says that we should admit more immigrants, but charge them higher taxes to compensate low-skilled Americans for the increase in labor market competition.**

2. Suppose that in 2015, workers earn a \$30,000 salary plus \$10,000 in health insurance benefits. The cost of health insurance always rises \$2000 per year in real terms. Assume (a) employers always provide health insurance, (b) labor demand does not rise, and (c) there is 5% inflation.

T, F, and Explain: **In the following table,  $x < \$30,000$  and  $y < \$28,571$ .**

Year	Nominal Salary Can't Fall				Nominal Salary Can Fall			
	Nominal Salary	Nominal Insurance Cost	Real Salary	Real Insurance Cost	Nominal Salary	Nominal Insurance Cost	Real Salary	Real Insurance Cost
2015	\$30,000	\$10,000	\$30,000	\$10,000	\$30,000	\$10,000	\$30,000	\$10,000
2016	\$30,000	\$12,600	\$28,571	\$12,000	<b>x</b>	\$12,600	<b>y</b>	\$12,000

3. T, F, and Explain: **The U.S. welfare state primarily helps the old, not the poor.**

4. T, F, and Explain: **According to the signaling model of education, academic cheating is just “cheating yourself.”**

5. Suppose married male college graduates' share of housework falls.

T, F, and Explain: **The rising gender imbalance on college campuses could explain this change.**

6. “[V]irtually no one feels that it was unfair for their parents to have *them*.” (Caplan, *Selfish Reasons to Have More Kids*)

T, F, and Explain: **Caplan’s point is that being born in imperfect circumstances is preferable to not being born at all.**



**Part 2: Short Answer**  
**(20 points each)**

In 4-6 sentences, answer both of the following questions.

1. Suppose there are two goods – meals and steel. Here is how much American and Mexican workers can produce in an hour:

	Steel	Meals
American	12	4
Mexican	1	2

Give a simple example showing how Mexican immigration effectively increases American workers' productivity. Why is this important?

2. Suppose the federal government raised the minimum wage to \$15 for non-white workers, while keeping the minimum wage at its current \$7.25 level for white workers. Would the economic effects of this race-based minimum wage mimic those of existing anti-discrimination laws? Carefully explain your answer.