

Unit 3 Quiz A

Randomly select 3 questions to ask members of the group requesting the next set of assignments. If they get all questions correct, give them the entire stack of quizzes and assignments so that they can quiz the next group. If they get any question wrong, send them back to their seats to review and then try again in 10 minutes or more.

1. What kind of an incentive is this: Publishing employee recycling rates by department?

Answer: social incentive.

2. What kind of an incentive is this: Campaign showing environmental impact of individual choices.

Answer: moral incentive.

3. The Israeli daycare center case study demonstrated how incentives can backfire. Explain:

- a) What was the original incentive system?
- b) What change was implemented?
- c) Why did the change lead to more late pickups?

Answer: The original incentive system was moral: parents felt guilty about being late. The change was a small fine for late pickups. It removed the moral guilt by putting a price on lateness.

4. Write R code to calculate average payment rates by office size using the bagel dataset.

Answer:

```
bagel %>%  
  group_by(office_size) %>%  
  summarize(payment_rate_avg = mean(payment_rate))
```

5. Interpret this regression output:

Call: `lm(formula = payment_rate ~ I(date >= "2001-08-11"), data = .)`

Coefficients: (Intercept) I(date >= "2001-08-11")TRUE
0.86584 0.02908

Answer: the average payment rate is 86.6%. After 9-11, the average payment rate went up by 2.9 percentage points.

6. Write code necessary to run a regression analyzing holiday effects to bagel payment rate.

Answer:

```
lm(payment_rate ~ christmas + thanksgiving + labor_day + fourth_july, data = bagel)
```