

Class Time:

Names:

SAMPLING AND DATA: DATA COLLECTION LAB II

STUDENT LEARNING OUTCOMES:

- The student will demonstrate the simple random, systematic, stratified, and cluster sampling techniques.
- The student will explain each of the details of each procedure used.

NOTE: The following page contains restaurants stratified by *city* into columns and grouped horizontally by *entree cost* (clusters).

In this lab, you will be asked to pick several random samples. In each case, describe your procedure briefly, including how you might have used the random number generator, and then list the restaurants in the sample you obtained.

SIMPLE RANDOM SAMPLE

Pick a *simple random sample* of 15 restaurants.

Procedure:

- | | | |
|----|-----|-----|
| 1. | 6. | 11. |
| 2. | 7. | 12. |
| 3. | 8. | 13. |
| 4. | 9. | 14. |
| 5. | 10. | 15. |

SYSTEMATIC SAMPLE

Pick a *systematic sample* of 15 restaurants.

Procedure:

- | | | |
|----|----|-----|
| 1. | 6. | 11. |
| 2. | 7. | 12. |
| 3. | 8. | 13. |
| 4. | 9. | 14. |

5.

10.

15.

STRATIFIED SAMPLE BY COST

Pick a *stratified sample*, by entree cost, of 20 restaurants with equal representation from each stratum.

Procedure:

- | | | | |
|----|-----|-----|-----|
| 1. | 6. | 11. | 16. |
| 2. | 7. | 12. | 17. |
| 3. | 8. | 13. | 18. |
| 4. | 9. | 14. | 19. |
| 5. | 10. | 15. | 20. |

STRATIFIED SAMPLE BY CITY

Pick a stratified sample, *by city*, of 21 restaurants with equal representation from each stratum.

Procedure:

- | | | |
|----|-----|-----|
| 1. | 8. | 15. |
| 2. | 9. | 16. |
| 3. | 10. | 17. |
| 4. | 11. | 18. |
| 5. | 12. | 19. |
| 6. | 13. | 20. |
| 7. | 14. | 21. |

CLUSTER SAMPLE

Pick a *cluster sample* of restaurants from two cities. The number of restaurants will vary.

Procedure:

- | | | | | |
|----|----|-----|-----|-----|
| 1. | 6. | 11. | 16. | 21. |
| 2. | 7. | 12. | 17. | 22. |
| 3. | 8. | 13. | 18. | 23. |
| 4. | 9. | 14. | 19. | 24. |

5.

10.

15.

20.

25.

Restaurants Used in Sample (Example)

Entree Cost →	Under \$10	\$10 to under \$15	\$15 to under \$20	Over \$20
San Jose	El Abuelo Taq. Pasta Mia Emma's Express Bamboo Hut	Emperor's Gard. Creskide Inn	Agenda Gervais Miro's	Blake's Eulipia Hayes Mansion Germania
Palo Alto	Senor Taco Olive Garden Taxi's	Ming's P.A. Joe's Stickney's	Scott's Seafood Poolside Grill Fish Market	Sundance Mine Maddalena's Spago's
Los Gatos	Mary's Patio Mount Everest Sweet Pea's Andele Taqueria	Lindsey's Willow Street	Toll House	Charter House La Maison Du Cafe
Mountain View	Maharaja New Ma's Thai-Rific Garden Fresh	Amber Indian La Fiesta Fiesta del Mar Dawit	Austin's Shiva's Mazeh	Le Petit Bistro
Cupertino	Hobees Hung Fu Samrat Panda Express	Santa Barb. Grill Mand. Gourmet Bombay Oven Kathmandu West	Fontana's Blue Pheasant	Hamasushi Helios
Sunnyvale	Chekijababi Taj India Full Throttle Tia Juana Lemon Grass	Pacific Fresh Charley Brown's Cafe Cameroon Faz Aruba's	Lion & Compass The Palace Beau Sejour	
Santa Clara	Rangoli Armadillo Willy's Thai Pepper Pasand	Arthur's Katie's Cafe Pedro's La Galleria	Birk's Truya Sushi Valley Plaza	Lakeside Mariani's

** The original lab was designed and contributed by Carol Olmstead.