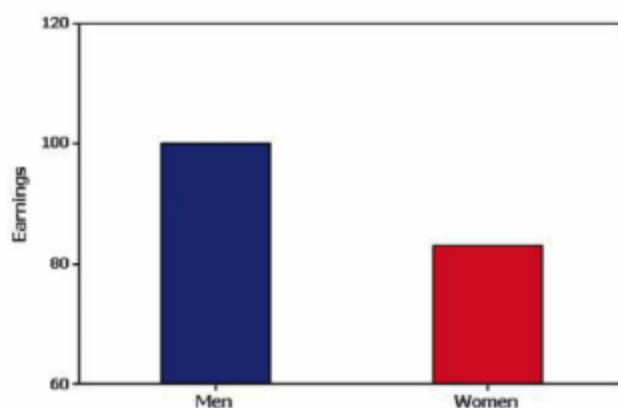


e. If two different challenges are randomly selected with replacement, find the probability that they both resulted in an overturned call.

f. If one of the 611 challenges is randomly selected, find the probability that it was made by a man or was upheld with an overturned call.

g. If one of the challenged calls is randomly selected, find the probability that it was made by a man given that the call was upheld with an overturned call.

4. Gender Gap In recent years, the discrepancy between incomes of women and men has been shrinking, but it continues to exist. The accompanying graph illustrates the current gap. The graph shows that for every \$100 earned by men, women earn \$82.80 (based on data from the Bureau of Labor Statistics). Identify what is wrong with the graph, then redraw it so that it is not deceptive.



5. Random Digits The digits 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 are randomly selected for applications including the selection of lottery numbers and the selection of telephone numbers to be called as part of a survey. In the following tables, the table at the left summarizes actual results from 100 randomly selected digits, and the table at the right summarizes the probabilities of the different digits.

Digit	Frequency
0	9
1	7
2	12
3	10
4	10
5	11
6	8
7	8
8	14
9	11

Digit x	$P(x)$
0	0.1
1	0.1
2	0.1
3	0.1
4	0.1
5	0.1
6	0.1
7	0.1
8	0.1
9	0.1

- What is the table at the left called?
- What is the table at the right called?
- Use the table at the left to find the mean. Is the result a statistic or a parameter?
- Use the table at the right to find the mean. Is the result a statistic or a parameter?
- If you were to randomly generate 1000 such digits, would you expect the mean of these 1000 digits to be close to the result from part (c) or part (d)? Why?