



## WELFARE REFORM IN WASHINGTON STATE (D)

### Skill Set 4: Hypothesis Testing

Clare Banks poured herself a cup of coffee and sat down at her desk. This morning's meeting had done little to relieve the pressure she was feeling. The WorkFirst caseload had increased by over 1000 cases since December 2000. As of February 2001, the caseload stood at 54,801 cases. According to the Governor's performance measures, the WorkFirst caseload was above the June 2001 target by over 7,000 cases. Banks had no illusions that it would be possible to reduce the caseload by that much in just five months. In addition, she was concerned with the broader implications of the increase in the caseload, and what that indicated about the impact of the WorkFirst program.

Human capital, health, and demographic characteristics affect employment, which in turn affects the welfare caseload. As part of its evaluation, the WorkFirst study examined the TANF experience of study respondents between March 1999 and December 1999. The study sample of over 3000 families was drawn from the statewide list of adults receiving welfare assistance in March 1999. By comparing group characteristics, Banks hoped to gain insight into the impact of personal characteristics on employment and clients' ability to leave TANF. Her analysis would also help her to determine what could be done to help clients leave TANF permanently. She paged her intern, who had taken a course in statistics, and settled in for a long night.

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This case was prepared by Roopa Karia, Marieka M. Klawitter, and Rachel Garshick Kleit at the Daniel J. Evans School of Public Affairs, University of Washington.

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| <b>TANF Experience March 1999 to December 1999</b> | <b>On TANF All Months</b> | <b>Exited TANF, Back in 6 Months</b> | <b>Exited TANF, No Return in 6 Months</b> |
|--|---------------------------|--------------------------------------|---|
| <b>Number of Respondents</b>                       | 1300                      | 273                                  | 1470                                      |
| <b>TANF Experience prior to March 1999</b>         |                           |                                      |   |
| Average Months on TANF                             | (9.45) 20.7               | (9.83) 18.2                          | (10.44) 16.3                              |
| 0 to 6   | 12%                       | 19%                                  | 26%                                       |
| 7 to 12  | 11%                       | 11%                                  | 14%                                       |
| 13 to 24   | 28%                       | 36%                                  | 29%                                       |
| 25 or more months                                  | 48%                       | 34%                                  | 31%                                       |
| <b>Human Capital</b>                               |                           |                                      |   |
| No HS or GED degree                                | 29%                       | 27%                                  | 20%                                       |
| High School only                                   | 24%                       | 24%                                  | 27%                                       |
| GED degree   | 18%                       | 19%                                  | 15%                                       |
| Vocational Certificate                             | 9%                        | 11%                                  | 12%                                       |
| Some college or more                               | 21%                       | 19%                                  | 26%                                       |
| Recent Work Experience                             | 47%                       | 58%                                  | 62%                                       |
| Average Months of Work Experience                  | (3.24) 2.57               | (3.43) 3.33                          | (3.43) 3.64                               |
| <b>Health</b>                                      |                           |                                      |   |
| Health is poor or fair                             | 44%                       | 36%                                  | 29%                                       |
| Work limitation due to health                      | 32%                       | 20%                                  | 15%                                       |
| <b>Family Characteristics</b>                      |                           |                                      |   |
| Child under 3                                      | 36%                       | 38%                                  | 36%                                       |
| Number of Children                                 | (1.36) 2.24               | (1.07) 1.84                          | (1.16) 1.95                               |
| 1 Child  | 32%                       | 48%                                  | 39%                                       |
| 2 Children   | 34%                       | 27%                                  | 32%                                       |
| 3 Children   | 19%                       | 15%                                  | 16%                                       |
| 4 or more Children                                 | 14%                       | 8%                                   | 9%  |
| Child With Chronic Illness                         | 11%                       | 8%                                   | 9%  |
| Two Parent Case                                    | 11%                       | 17%                                  | 17%                                       |
| <b>Demographics</b>                                |                           |                                      |   |
| Male   | 6%                        | 5%                                   | 6%  |
| Age under 21                                       | 4%                        | 6%                                   | 4%  |
| Age 21 to 30                                       | 38%                       | 48%                                  | 44%                                       |
| Age 31 to 40                                       | 37%                       | 35%                                  | 34%                                       |
| Age over 40  | 21%                       | 11%                                  | 18%                                       |
| Average Age  | (8.74) 33.24              | (7.98) 30.77                         | (8.57) 32.28                              |
| Race/Ethnicity: White                              | 72%                       | 68%                                  | 75%                                       |
| Race/Ethnicity: Latino                             | 9%                        | 11%                                  | 10%                                       |

| <b>TANF Experience March 1999 to December 1999</b> | <b>On TANF All Months</b> | <b>Exited TANF, Back in 6 Months</b> | <b>Exited TANF, No Return in 6 Months</b> |
|--|---------------------------|--------------------------------------|---|
| Race/Ethnicity: African American                   | 10%                       | 11%                                  | 8%  |
| Race/Ethnicity: Asian/Pacific Islander             | 2%                        | 4%                                   | 3%  |
| Race/Ethnicity: Native American                    | 8%                        | 8%                                   | 7%  |
| <b>Family Background</b>                           |                           |                                      |   |
| Abused as Child                                    | 37%                       | 36%                                  | 34%                                       |
| Abused as Adult                                    | 51%                       | 48%                                  | 43%                                       |
| CPS Intervention as Child                          | 11%                       | 12%                                  | 9%  |
| Pregnant as Teen                                   | 48%                       | 48%                                  | 43%                                       |
| Parent was on Welfare                              | 33%                       | 34%                                  | 34%                                       |
| Parent was on Food Stamps                          | 36%                       | 36%                                  | 35%                                       |

NOTE: Exiters include only those who remained off TANF for at least two months.  
Standard deviation for means are given in parentheses

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### Questions

1. Describe the overall characteristics of the TANF sample. What characteristics do you think are likely to have an impact on a client's ability to leave TANF? What sorts of causal relationships might you expect to see? Explain.

#### *Prior TANF Experience*

2. Is there evidence to conclude that the average number of months spent on TANF prior to March 1999 is different for clients who exited and did not return in six months versus a) clients on TANF all months and b) clients who exited and returned within 6 months?
3. Of clients who were on TANF the entire period from March to December 1999, 48% had spent 25 or more months on TANF. Does this proportion differ significantly from the proportion for a) clients who exited and returned within 6 months and for b) clients who exited and did not return within 6 months?

#### *Education*

4. Of clients who were on TANF the entire period from March to December 1999, 29% did not have a high school or GED degree. Does this proportion differ significantly from the proportion for a) clients who exited and returned within 6 months and for b) clients who exited and did not return within 6 months?
5. Construct a confidence interval for the difference between the proportion of clients who have some college experience for those who were on TANF all months versus a) clients who exited and returned within 6 months and b) clients who exited and did not return within 6 months. Interpret your results.
6. Calculate and interpret the p-values for Question 4.

#### *Work Experience*

7. Does the average months of prior work experience differ between the group that stayed on TANF all months and the groups that left TANF? Explain your results, and confirm by calculating and interpreting the p-values.
8. Construct a confidence interval for the difference between the proportion of clients with recent work experience who were on TANF all months versus the proportion for a) clients who exited and returned within 6 months and for b) clients who exited and did not return within 6 months. Interpret your results.
9. Choose a personal characteristic that you feel may have an impact on a client's ability to leave TANF. Explain the effect you expect this characteristic to have on a client's ability to leave TANF. Test for significance between the group that stayed on TANF all months and the groups that left TANF.

10. Write a summary of the results of your analysis for Clare, who has a non-statistician background. Suggest how the WorkFirst program could respond to the issues you have discovered.