



Educational Experiences and Employment Outcomes for TANF Parents Attending Community and Technical Colleges

Deleena Patton, PhD • Melissa Ford Shah, MPP • Qinghua Liu, PhD • David Mancuso, PhD
Barbara E.M. Felver, MES, MPA

In collaboration with the DSHS Economic Services Administration and the Washington State Board for Community and Technical Colleges

WORKFIRST, Washington State's Temporary Assistance for Needy Families program aims to help low-income families build a pathway out of poverty and toward economic security.¹ Washington State's Community and Technical Colleges (CTCs) provide education and training opportunities for WorkFirst parents, as education is one important pathway to employment and economic self-sufficiency. This report describes WorkFirst client experiences at CTCs and analyzes self-sufficiency outcomes for those who successfully reach the Tipping Point—defined as achievement of 45 college credits and a credential. Research indicates that reaching the Tipping Point is associated with higher earnings (Prince and Jenkins, 2005).

WorkFirst parents who reached the Tipping Point were more likely to be employed and had higher annual earnings than a statistically matched group of TANF parents. However, few WorkFirst enrollees persist in education long enough to reach the Tipping Point.

Key Findings

- **Only a small portion of WorkFirst clients enroll at CTCs.** Twenty-eight percent of all WorkFirst clients in academic year (AY) 2009-10 were enrolled in a CTC during the same year, with 11 percent enrolling for the first time (looking back as far as AY 2004-05).
- **WorkFirst clients most commonly enrolled in CTCs for basic skills education.** Thirty-nine percent of WorkFirst CTC enrollees sought basic skills education, 32 percent sought vocational education, 9 percent sought an academic degree, and the remaining 20 percent reported some other reason.
- **Few WorkFirst clients complete degrees.** Seven percent of those enrolled for the first time in academic year 2009-10 completed a degree or credential by academic year 2012-2013
- **Clients who reach the Tipping Point have better employment outcomes.** WorkFirst clients who earn 45 college credits and a credential are significantly more likely to be employed and have greater earnings at one year and two years follow-up than a statistically matched comparison group.

¹ WorkFirst provides cash assistance and work supports—including job search, work experience activities, and short-term education and training—to low-income parents with children.

Q1. What proportion of WorkFirst parents enroll in community college and what are their completion outcomes?

Enrollment and Completion Patterns

To investigate community and technical college enrollment and completion among WorkFirst clients, we identified a cohort of individuals who were participating in WorkFirst in Academic Year 2009-10. We found that twenty-eight percent of parents with at least one month on TANF in Academic Year 2009-10 were enrolled in state community or technical colleges in that same year. About 1 out of 10 TANF parents were enrolled for the first time in state community or technical colleges in that year.

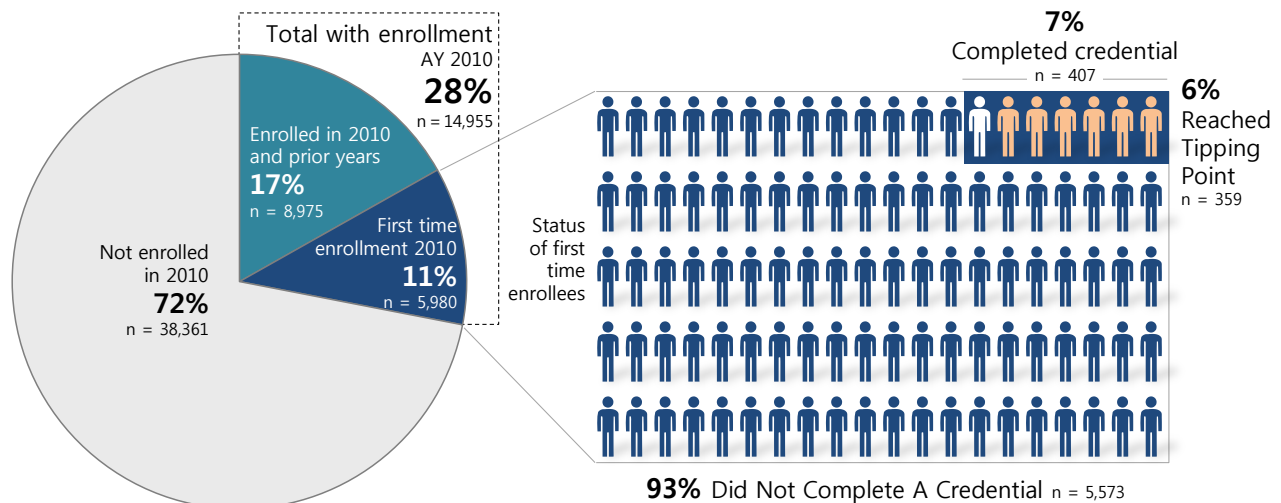
Over one-quarter of WorkFirst parents in Academic Year 2009-10 were enrolled in a community and technical college at some point in that year.

Of the 5,980 WorkFirst parents who enrolled in community and technical colleges for the first time in 2009-10, only 7 percent had earned any degree or credential by the end of 2012-13, and only 6 percent had reached the Tipping Point—45 college credits and a credential—by that time.²

FIGURE 1.

WorkFirst Parents Enrolled in State Community and Technical Colleges

TOTAL ACADEMIC YEAR 2010 = 53,316



SOURCE: Washington State Board of Community and Technical Colleges and the DSHS Automated Client Eligibility System (ACES).

Of the 407 clients who completed credentials, 58 completed their first credential in AY 2009-10, 161 completed their first credential in AY 2010-11, 121 completed their first credential in AY 2011-12, and 67 completed their first credential in AY 2012-2013. Therefore, the majority of completions (69%) for this cohort of WorkFirst parents happened in either the second or third year after beginning at a CTC.

Among the 407 clients who completed a degree or credential, later completers were far less likely to be on TANF for at least a month during the Academic Year they completed their credential, indicating

² We also analyzed completion rates for WorkFirst parents who enrolled in Academic Year 2009-10 and had enrolled in a prior year. We found that 16 percent of continuing CTC enrollees completed a credential and 13 percent reached the Tipping Point by the end of the 2012-13 academic year. This rate differs from first time enrollees because, by definition, returning enrollees have persisted in their education beyond a single year. The rate does not take into account that a portion of those not enrolled in academic year 2009-10 also have prior experience in community colleges. Therefore, we focus on outcomes for first time enrollees, which accounts for the experience of those who do not persist in education beyond their initial year of enrollment.

that they may have pursued other avenues besides WorkFirst to continue their schooling. Because of how we defined the cohort, all of the parents who completed degrees in their first year of enrollment were also on TANF for at least a month in that year. In contrast, only 39 percent of those who took four years to complete a credential were on TANF for at least a month in the year that they eventually completed their credential. Figure 2 displays the distribution of when parents received their credentials and whether they were on TANF for at least one month in that year.

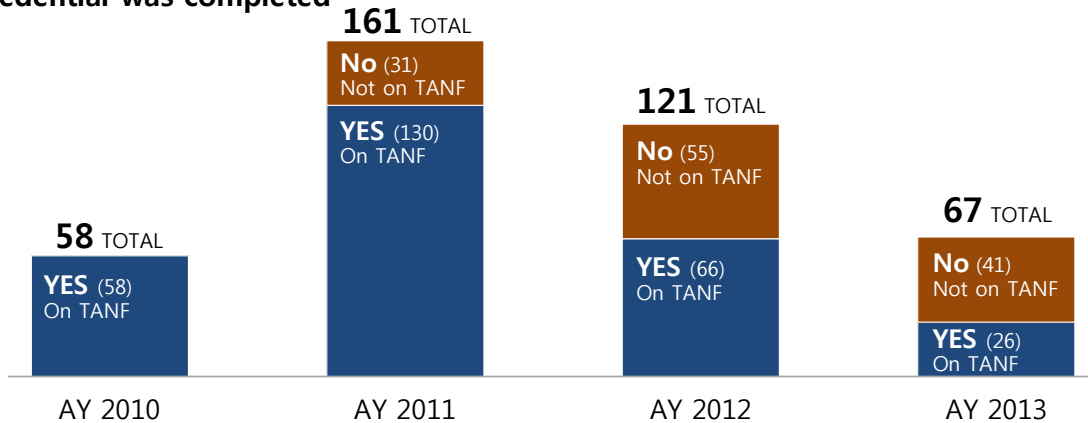
Eighty-one percent of those who took two years to complete a credential were on TANF in the year they were awarded their credential and 55 percent of those who took three years to complete a credential were on TANF in the year they graduated.

FIGURE 2.

TANF Participation among WorkFirst Parents at the Time of First Credential

FIRST-TIME ENROLLEES IN ACADEMIC YEAR 2010 = 5,980

Q. On TANF in at least one month in the Academic Year in which the first credential was completed



SOURCE: Washington State Board of Community and Technical Colleges and ACES Data Warehouse

Enrollment and Completions Based on Type of Education Sought

While only 7 percent of WorkFirst parents who enrolled in state community colleges completed a college degree or credential in the four-year study period (AY 2009-10 to AY 2012-13), the likelihood of completion differed based on the type of education sought.

Community and technical colleges serve individuals with a variety of educational objectives, from those seeking adult basic education to those hoping to transfer to a four-year institution, as well as those who take a few classes to upgrade their skills. Therefore, we investigate enrollments and completions by the type of educational program the parent reported intending to pursue when they enrolled in college.

Nearly 40 percent of WorkFirst parents who enrolled for the first time in community college in the study period were pursuing adult basic education.

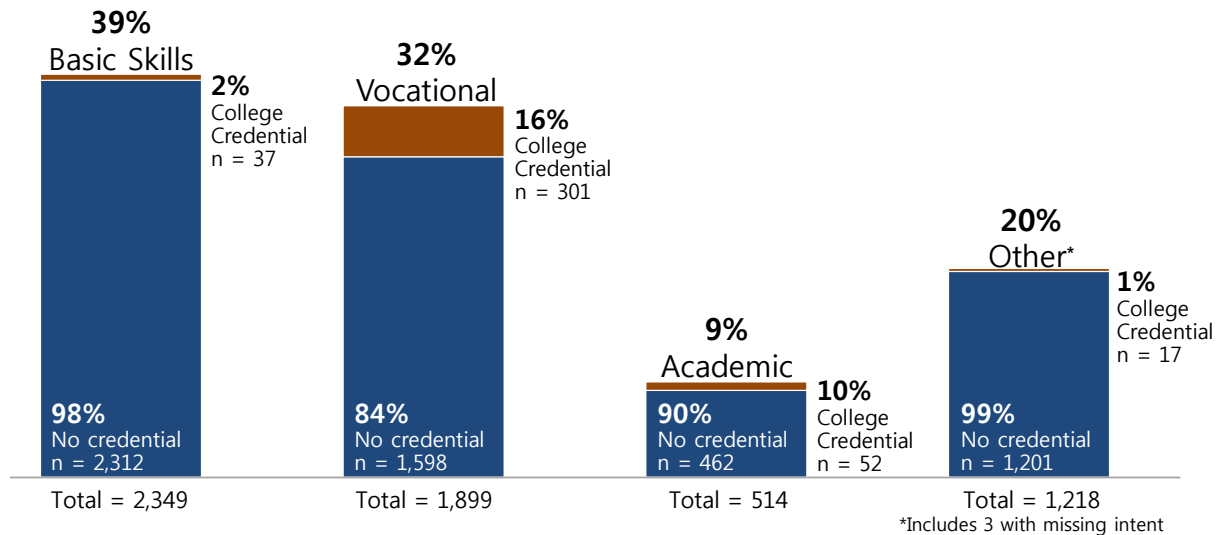
The largest portion of WorkFirst parents (39 percent) enrolled in community or technical college to pursue a basic skills education. Few of these enrollees obtained a degree or credential by the end of 2013 (about two percent). However, this is not unexpected, as these parents are likely attending adult

basic education, GED, or ESL programs and are not, at least initially, seeking college credit or a college credential.

FIGURE 3.

Enrollment Intent and Credential Completion among WorkFirst Parents

FIRST-TIME ENROLLEES IN ACADEMIC YEAR 2010 = 5,980



SOURCE: Washington State Board of Community and Technical Colleges.

The next largest portion of WorkFirst parents (32 percent) enrolled in a CTC to pursue a vocational education, including enrollment in certificate or other professional-technical degree programs. Of these enrollees, about 16 percent completed a degree or credential by 2013. Most of these completions put the parent past the Tipping Point of 45 college credits and a degree.

Among WorkFirst parents who report pursuing a vocational education at a state community and technical college in AY 2010, about 16 percent completed any degree or credential by AY 2013.

A small portion of WorkFirst parents (9 percent) identified an academic intent for enrolling, indicating that they may have planned to achieve an associate's degree and possibly transfer to a four-year institution. About 10 percent of those who enrolled with an academic intent completed a CTC degree or credential by 2013.

Finally, 20 percent of the WorkFirst parent enrollees in 2010 had another intent, such as upgrading job skills, general studies, or multiple goals. Very few of these individuals completed a degree, which is to be expected as their reason for enrolling was not to obtain a degree.

Q2. For WorkFirst parents who complete credentials at community colleges, what is the impact of reaching the Tipping Point?

While few WorkFirst parents reach the Tipping Point, we can still examine outcomes among those who do, relative to similar WorkFirst parents who complete other WorkFirst activities. WorkFirst parents were included in this analysis if they were on TANF for at least one month in academic year 2009-10 or 2010-11, and in the prior year. Outcomes were observed for those who achieved the Tipping Point in the community college system relative to a matched comparison group who had never engaged in the state's community college system (see Table 2 on page 7 for key matching variables).³

WorkFirst parents who reached the Tipping Point were more likely to be employed, had higher annual earnings, and spent less time on TANF two years after graduating, relative to the matched comparison group.

Table 1 displays regression estimates of the impact of reaching the Tipping Point. Compared to their statistically matched peers and controlling for prior employment history, WorkFirst parents who reached the Tipping Point were more likely to be employed (66 percent compared to 46 percent) and had annual earnings \$4,802 higher than the comparison group during the first year of follow-up. Parents who reached the Tipping Point spent the same number of months on TANF in the first follow-up year as the comparison group.

By the second follow-up year, WorkFirst parents who reached the Tipping Point were still more likely to be employed (69 percent compared to 46 percent), had annual earnings that were, on average, \$6,265 higher, and spent, on average, 0.28 fewer months on TANF when compared to WorkFirst parents who did not engage in the community college system.

TABLE 1.

Impact of Reaching the Tipping Point

| Difference Associated with Reaching the Tipping Point | | | | |
|---|--|---------|-----------------|---------|
| | Matched Comparison Group Mean | | | |
| | Tipping Point Group Mean (regression-adjusted) | | | P-VALUE |
| Average annual earnings, 1 year follow-up | \$10,035 | \$5,233 | +\$4,802 | <0.0001 |
| Average annual earnings, 2 years follow-up | \$12,144 | \$5,880 | +\$6,265 | <0.0001 |
| Months on TANF, 1 year follow-up | 3.3 | 3.3 | — 0.02 | 0.92 |
| Months on TANF, 2 years follow-up | 1.5 | 1.8 | — 0.28 | 0.05 |

| Percent Change Associated with Achieving the Tipping Point | | | | |
|--|---|-----|------------|---------|
| | Matched Comparison Group Percent | | | |
| | Tipping Point Group Percent (regression-adjusted) | | | P-VALUE |
| Employment, 1 year follow-up | 66% | 46% | 45% | <0.0001 |
| Employment, 2 years follow-up | 69% | 46% | 49% | <0.0001 |

Figure 4 displays the employment rate over time for the Tipping Point group, the matched comparison group, and the larger pool from which the matched comparison group was drawn. The Tipping Point group and matched comparison group are well matched prior to the index year, with

³ We note that clients engage in different WorkFirst activities based on their individual needs, skills and circumstances, not all of which can be controlled for using the available administrative data. A degree of selection bias still may be present after matching on observable baseline characteristics, and the true impact of achieving the Tipping Point may be less than estimated here.

the Tipping Point group appearing to withdraw from the labor market in anticipation of college enrollment. After receiving their college degree or credential, the Tipping Point group surpasses the matched comparison group in labor force participation.

FIGURE 4.
Employment Impact of Reaching the Tipping Point

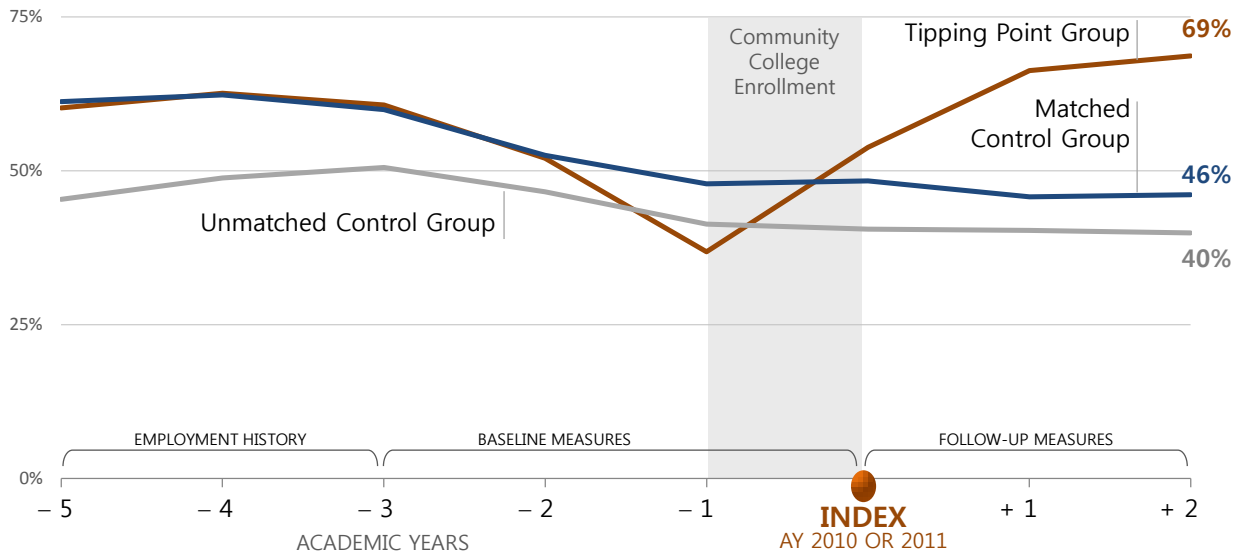
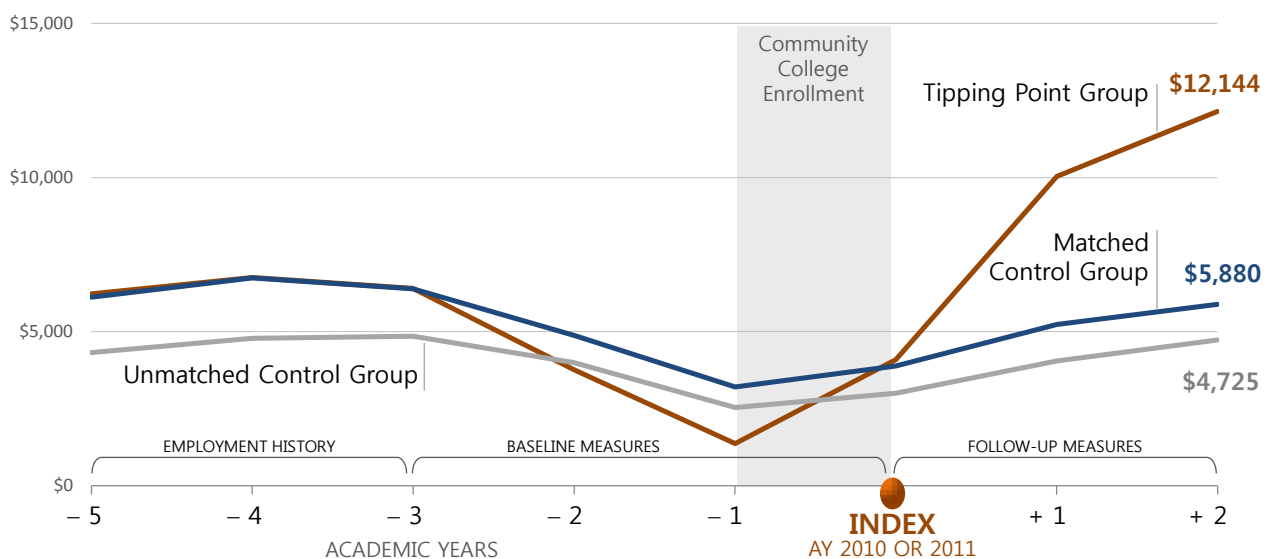


Figure 5 displays earnings for the Tipping Point group and matched comparison group. As with employment, earnings are well matched between the Tipping Point group and comparison group prior to college enrollment. After receiving their college degree or credential, the Tipping Point group's earnings increase significantly relative to the comparison group.

FIGURE 5.
Earnings Impact of Reaching the Tipping Point



Discussion

This report gives an overview of community college participation among WorkFirst adults and summarizes outcomes for WorkFirst clients who reached the 'Tipping Point'. The findings are based on a descriptive analysis of the experiences of WorkFirst parents, as well as a matched comparison group evaluation design that controls for many different dimensions of baseline client characteristics and prior employment experiences.

One key finding is that WorkFirst parents who reached the Tipping Point were more likely to be employed, had higher annual earnings, and subsequently spent fewer months on TANF. All three of these findings were statistically significant. It is important to keep in mind that WorkFirst clients engage in different activities based on their individual needs, skills and circumstances, not all of which can be controlled for using the available administrative data. Selection bias may still be present after matching on observable baseline characteristics, and the true impact of achieving the Tipping Point may be less than estimated here. However, even with aggressive assumptions about the scale of selection bias in the estimated employment impacts, we still would be left with net estimates of large positive impacts on employment outcomes resulting from these educational investments.

The second related key finding is that, while reaching the Tipping Point leads to positive self-sufficiency outcomes, very few WorkFirst parents who enroll in community colleges complete a credential. In some cases, this is to be expected. For example, parents who are pursuing adult basic education, ESL training, or want to take a few classes to upgrade job skills do not attend college with the intent to obtain a degree. However, for WorkFirst parents who enroll in community college to pursue vocational training or academic advancement, the goal is ultimately to complete a degree or credential. Even among WorkFirst parents seeking vocational education, completion rates are only 16 percent. Since reaching the Tipping Point substantially improves self-sufficiency outcomes, it is important to identify strategies to improve the credential completion rates of WorkFirst clients who enroll at community and technical colleges, whether during or after their time on WorkFirst.

TABLE 2.

Baseline Characteristics of Tipping Point and Comparison Group, Pre- and Post-Matching

| | Tipping Point TOTAL = 1,202 | 1:1 Matched Comparison Group TOTAL = 1,202 | Unmatched Comparison Pool TOTAL = 52,391 |
|---|---------------------------------------|--|--|
| Female | 79% | 79% | 77% |
| White only, non-Hispanic | 57% | 56% | 54% |
| Hispanic | 11% | 10% | 14% |
| African American | 20% | 19% | 14% |
| American Indian | 5% | 5% | 9% |
| Asian/Pacific Islander | 7% | 8% | 9% |
| Age 18 - 24 | 19% | 19% | 28% |
| Age 25 - 34 | 48% | 48% | 38% |
| Age 35 - 44 | 25% | 25% | 22% |
| Age 45 - 54 | 6% | 6% | 9% |
| Age 55+ | 1% | 1% | 1% |
| Less than 12 years of education or GED (source: ACES) | 11% | 9% | 32% |
| 12 years of education (source: ACES) | 59% | 61% | 53% |
| 13 to 15 years of education (source: ACES) | 28% | 27% | 12% |

| | Tipping Point TOTAL = 1,202 | 1:1 Matched Comparison Group TOTAL = 1,202 | Unmatched Comparison Pool TOTAL = 52,391 |
|--|---------------------------------------|--|--|
| 16 or more years of education (source: ACES) | 3% | 2% | 2% |
| Average number of children | 1.88 | 1.87 | 1.81 |
| Youngest child under 1 year-old | 11% | 12% | 22% |
| Youngest child age 1 - 2 | 33% | 34% | 25% |
| Youngest child age 3 - 5 | 24% | 24% | 16% |
| Youngest child age 6 - 11 | 20% | 19% | 18% |
| Youngest child age 12+ | 11% | 11% | 14% |
| Two parent household | 25% | 27% | 30% |
| County unemployment rate | 9.7% | 9.7% | 9.8% |
| County urbanicity: rural | 0% | 1% | 1% |
| County urbanicity: high density urban | 50% | 48% | 39% |
| County urbanicity: med density urban | 31% | 32% | 36% |
| County urbanicity: low density urban | 19% | 20% | 24% |
| Unstably housed in prior 24 months ⁴ | 17% | 15% | 21% |
| Homeless without housing in prior 24 months ⁵ | 6% | 7% | 12% |
| Family violence identified in Comprehensive Evaluation (CE) | 2% | 2% | 3% |
| Financial management issues identified in CE | 2% | 2% | 4% |
| Criminal background issue identified in CE | 1% | 2% | 3% |
| School challenge identified in CE | 3% | 3% | 6% |
| Employability challenge identified in CE | 7% | 6% | 13% |
| Pregnant or caring for others identified in CE | 2% | 2% | 6% |
| Chronic illness risk score at or above 1 | 41% | 43% | 51% |
| Alcohol/drug treatment need in prior 24 months | 14% | 14% | 21% |
| Mental health need in prior 24 months | 43% | 42% | 42% |
| Ever incarcerated in Dept. of Corrections facility | 3% | 3% | 3% |
| Arrested in prior 24 months | 11% | 10% | 21% |
| Conviction in prior 24 months | 17% | 16% | 25% |
| Average months on TANF, 3 rd year prior to index | 2.9 | 2.9 | 2.5 |
| Substance abuse treatment (WorkFirst activity), prior 3 years | 7% | 7% | 7% |
| Family violence resolution (WorkFirst activity), prior 3 years | 8% | 8% | 6% |
| Mental health services (WorkFirst activity), prior 3 years | 11% | 11% | 14% |
| Employed 5 years prior to index | 60% | 61% | 45% |
| Employed 4 years prior to index | 63% | 62% | 49% |
| Employed 3 years prior to index | 61% | 60% | 51% |
| Earnings 5 years prior to index | \$6,218 | \$6,117 | \$4,315 |
| Earnings 4 years prior to index | \$6,755 | \$6,740 | \$4,775 |
| Earnings 3 years prior to index | \$6,394 | \$6,382 | \$4,851 |

⁴ Unstably housed includes individuals who were homeless with housing, in an emergency shelter, or a battered spouse shelter in the prior 24 months according to ACES.

⁵ Homeless without housing includes only those who were homeless without housing in the past 24 months according to ACES.

TECHNICAL NOTES

STUDY POPULATION

The Tipping Point population included WorkFirst parents who had:

1. At least one month on TANF in academic year 2010 or 2011,
2. One month on TANF in the prior academic year, and
3. Achieved the Tipping Point in 2010 or 2011.

Two years were used to define the Tipping Point group because of the infrequency with which WorkFirst parents achieved the Tipping Point. The comparison pool included WorkFirst parents who had:

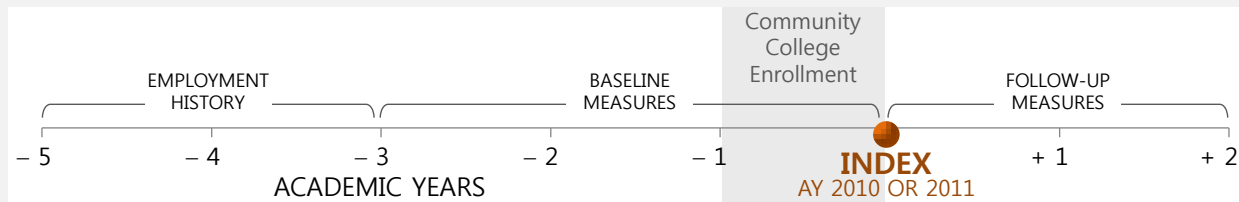
1. At least one month on TANF in academic year 2010 or 2011,
2. One month on TANF in the prior academic year, and
3. Never enrolled in community college (between AY 2007 and AY 2013, the period for which SBCTC data was available for this study).

From the overall comparison pool, the comparison group was selected using propensity score matching. The balance on baseline characteristics before and after matching is displayed in Table 2. The Tipping Point group and one-to-one matched comparison group are well-balanced on important characteristics including race/ethnicity, prior education, prior employment and various risk factors.

STUDY TIMELINE

While other RDA reports often use the concept of an "index month", data limitations require our focus on an index year in this report. For the Tipping Point group, the SBCTC data RDA received identifies the academic year in which the Tipping Point was reached, not the specific quarter or month during the year. Therefore the study period is divided into:

1. Baseline years (-5 through -1 on the study timeline): in which employment and risk history are measured,
2. The index year (INDEX on the study timeline) in which demographics, household composition, and contextual factors are measured, as of the first month on TANF in the year,
3. Follow up years (+1 and +2 on the study timeline) in which outcomes are measured.



Measures of health and safety risks are taken from a 24-month period prior to the index year. Employment history (participation and earnings) comes from 3 to 5 years before the index year. Since those pursuing education often leave the labor force in anticipation of pursuing a degree, we did not include employment history measures from the 24-month period immediately before the index year.

REFERENCE

Prince, D., & Jenkins, D. (2005). Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Tracking Study. *Community College Research Center*.



REPORT CONTACT: Alice Huber, PhD, 369.902.0707
VISIT US AT: <https://www.dshs.wa.gov/SESA/research-and-data-analysis>