An Impact Evaluation of the Welfare-to-Work
Provisions of California
Senate Bill 1104

Research and Evaluation Services

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Background

Welfare laws in the State of California stipulate that all non-exempt persons receiving cash aid under the California Work Opportunity and Responsibility to Kids (CalWORKs) program are required to participate in activities designed to promote their transition from Welfare-to-Work. These activities are subsumed under the Greater Avenues for Independence (GAIN) program. Participants in the GAIN program are required to have a Welfare-to-Work Plan specifying all the active steps and services that will facilitate their movement from the job search to employment. The implementation of California Senate Bill (SB) 1104 has amended sections of the Welfare and Institutions Code (W&IC) related to the CalWORKs Welfare-to-Work plan, requiring that participants who are still in the GAIN program after 90 days and have not secured full-time employment should enter into a written and signed Welfare-to-Work Plan with the welfare department.

The purpose of this report is to evaluate the provisions of SB 1104 affecting the Welfare-to-Work process in the County of Los Angeles’ GAIN program. SB 1104 requires all Welfare-to-Work participants to have a Welfare-to-Work Plan signed within 90 days of the approval of a CalWORKs participant’s eligibility. The bill established December 1, 2004 as the effective date of implementation. The legislation further specified that participants receiving aid before December 1, 2004 would also be subject to the new Welfare-to-Work requirements.

Assessing SB 1104: Four Research Questions

The impact of SB 1104 is evaluated by tracking and comparing two entry cohorts of CalWORKs participants, one entering before the implementation of SB 1104 (from January through June 2004), and one entering after the implementation of SB 1104 (from January through June 2005). The details of the evaluation design and methods are presented in the Technical Appendices A and B. The analysis of the two cohorts is guided by four research questions:

• How have Welfare-to-Work outcomes for GAIN participants changed after the implementation of SB 1104?

• How has the overall speed with which GAIN participants undertake Welfare-to-Work activities changed since the implementation of SB 1104?

• Has the likelihood that CalWORKs participants will sign Welfare-to-Work plans in ninety days changed since the implementation of SB 1104?
The Flow between Welfare-to-Work Activities

From CalWORKs Approval to GAIN Registration and Enrollment

CalWORKs Welfare-to-Work activities are subsumed under Greater Avenues for Independence (GAIN). In assessing the flow of participants from one GAIN activity to another, the scope of this study is limited to the first phase of the GAIN program, from approval for CalWORKs through the signing of a Welfare-to-Work Plan. The GAIN program flow starts with the intake process, which is referred to as ‘approval’ in this study and is the point at which eligibility for CalWORKs aid is determined. The next step for all mandatory participants is registration (or enrollment) in GAIN, which is an automated step and does not involve any action by the participant or program staff.

From GAIN Registration to Orientation and Appraisal

After GAIN registration, participants attend a one-day Orientation and Appraisal (OAP) session. At this session, participants are introduced to the GAIN program and their employment history and skills are appraised. In addition, arrangements are made for needed supportive services such as child care and transportation.

From Job Club to the Welfare-to-Work Plan

With the completion of OAP, participants attend Job Club, where they enhance their job search skills and look for employment, ideally over a period of no more than four weeks. Once Job Club is completed, participants are assessed and sign a Welfare-to-Work Plan. The Welfare-to-Work Plan assigns participants to various GAIN activities, including employment (for those who find a job), training, or engagement in specialized supportive services for mental health, substance abuse, and domestic violence issues.

The Ideal Program Flow versus Actual Practice

Under ideal circumstances, and as mandated by SB 1104, a GAIN participant is expected to take ninety days to move through approval, registration, OAP, Job Club, assessment, and the signing of the Welfare-to-Work Plan. A more specific ideal circumstance pertinent to the implementation of SB 1004 is that all non-exempt participants, who begin attending Job Club/Job Search within 30 days of the determination of their eligibility for CalWORKs cash aid, must complete a Welfare-to-Work Plan within 90 days of Job Club completion. However, in actual practice, numerous factors extend the ninety-day period outward for most GAIN participants. Each step may take longer than expected for different reasons, and excess time actually spent in each step can prolong the flow of participants through the program. A second, and in many ways more critical factor, is the time between program steps. If lags between different steps are longer than expected, significant delays in signing Welfare-to-Work Plans can result. Thirdly, participants often become noncompliant with GAIN requirements. Participant noncompliance leads to a lengthy
conciliation and resolution process that delays participant flow through GAIN. Moreover, many noncompliant participants either become sanctioned or exit from welfare before signing a Welfare-to-Work Plan.

**Participant Flow Before and After SB 1104**

Figures 1 and 2 show the flow of cases for the January 2004 (pre-SB 1104) and January 2005 (post-SB 1104) entry cohorts. These flowcharts illustrate how participants actually move through the different GAIN program steps by showing the number of participants in each step. A detailed illustration of these flowcharts is presented in the Technical Appendix A. The yellow circles (at the right and bottom of Figures 1 and 2) show the outcomes for each cohort over the six-month study periods in 2004 and 2005. By the end of their six-month study periods, participants in both the January 2004 and January 2005 cohorts were classified into one of the following outcomes:

- The participant became employed;
- The participant signed a Welfare-to-Work Plan;
- Participant did not show up to sign the Welfare-to-Work Plan;
- Participant was assigned to a Self-Initiated Program (SIP) or Specialized Supportive Services (SSS) component;
- The participant’s case was terminated (including participants who were sanctioned and then exited welfare);
- The participant’s case was deregistered (excluding those who were deregistered due to sanctions); and
- The participants did not become engaged in any additional activities following completion of an activity.

**Cohort Sizes and Participants Who Did Not Enroll in GAIN**

Figure 1 shows that, after excluding exempted cases (312) and Cal-Learn cases (85), the 2004 entry cohort consisted of 2,360 participants. Figure 2 shows that the size of the 2005 entry cohort was 19 percent smaller (1,905). Within the 2004 cohort, 358 of the participants (15 percent) did not enroll in GAIN. By comparison, the number not enrolling in GAIN from the 2005 cohort shrank in both number (154) and proportion (8 percent). While many of these non-enrolled participants in each cohort exited welfare, the majority of them stayed in GAIN but did not engage in any other Welfare-to-Work activities following approval for CalWORKs assistance.
Figure 1. January 2004 Cohort
Six Months GAIN Flow

- Approved N=2,757
- Exempted N=312
- Cal Learn N=85
- Registered N=2,002
- Orientation
- Completed QAP N=1,042
- Not Registered N=358
- No Activity N=701
- N1=195 N2=188 N3=260 N4=58
- Deregistered N=359
- N1=13 N2=263 N3=68 N4=15
- Sanctioned N=293
- N1=14 N2=233 N3=42 N4=4
- Terminated N=507
- N1=136 N2=276 N3=72 N4=23

- Employed N=331
- Signed W2W Plan N=100
- No Show W2W Plan N=25
- SIP/SSS N=44

N=2,360
N=578
N=464
N=1,538
N=574
N=468
N=100
N=468
Figure 2. January 2005 Cohort Six Months GAIN Flow
Completion of GAIN Program Steps

Less than Half of the Participants in Both the Pre- and Post-SB 1104 Cohorts Completed Orientation and Appraisal

While 2,002 participants in the 2004 cohort enrolled in GAIN and were assigned to an OAP session, 1,751 participants in the 2005 cohort enrolled in GAIN and were similarly assigned. However, only 464 (20 percent) of the participants in the 2004 cohort completed OAP in their first appointments. The proportion was slightly higher for the 2005 cohort when 467 participants (25 percent) completed the OAP session in their first appointment. The remaining 1,538 participants in 2004 and 1,284 in 2005 failed to complete their OAP in their first sessions. Therefore, almost two-thirds of both cohorts did not show up for their assigned OAP session following their enrollment. However, another 578 participants in 2004 and 469 in 2005 completed their OAP session in subsequent sessions. Accordingly, a total of 1,042 participants (44 percent) in 2004 and 939 participants (49 percent) in 2005 completed their OAP and moved on to Job Club. At the same time, 960 participants (48 percent) in 2004 and 815 (43 percent) in 2005 never showed up for their OAP sessions during their cohort periods.

More than Half the Participants Who Completed Orientation in Each Cohort Moved on to Job Club

More than half of the participants who completed OAP in both entry cohorts (55 percent in 2004 and 53 percent in 2005) moved on to Job Club. The remaining participants in each cohort who completed OAP did not participate in Job Club and moved on to one of the outcome categories directly from the OAP step. Only 6 percent of the overall entry cohort in 2004 and 7 percent of the overall entry cohort in 2005 completed Job Club.

Relatively Small Numbers of Participants Signed Welfare-to-Work Plans in Each Cohort

After either the OAP session or Job Club, 331 participants from the 2004 cohort and 310 participants from the 2005 cohort were employed. The number of participants who signed Welfare-to-Work Plans was low for both cohorts. Only 100 participants from the 2004 cohort signed a plan, which is four percent of the overall cohort and 10 percent of the participants in the cohort who completed the OAP. The numbers improved for the 2005 cohort when 134 participants signed a Welfare-to-Work Plan, which is 7 percent of the overall cohort and 14 percent of the participants in the cohort who completed an OAP session.

Another way of evaluating the improved proportion of participants who signed Welfare-to-Work Plans in 2005 involves using another, more logical denominator. If the denominator is limited to the participants in each cohort who were in a position to sign a plan, then all deregistered, sanctioned, terminated, and employed participants would be excluded. The only participants who are counted in this case are those who either signed a plan, did not show up for the assessment session, or the large group of
participants unaccounted for in any activity (i.e., those who do not participate in any other activity after completing one). Using this new, more sensible denominator as the basis for calculations, the proportion of participants who signed a Welfare-to-Work Plan increased from 12 percent in 2004 to 25 percent in 2005.

Although a small proportion of participants sign their plans, some of the participants who have not signed a plan may be in a position to sign in the future if the ninety-day window has not been exhausted. This may happen if the participant has been in the compliance process for a long period of time since the time in this process is excluded. The data shows that approximately 12 percent of participants in 2004 and 10 percent in 2005 were in a position to sign a plan but failed to do so in 6 months—these are the participants who completed an activity and did not deregister or were not terminated. When the time in the compliance process is excluded, less than 1 percent of both cohorts were found not to have 90 countable days at of the end of the 6-month study period.

Finally, it should be noted that, the proportion of participants signing their plans is lower for those coming from two-parent families since one of these parents may not fulfill the Welfare-to-Work requirements. The proportion of participants who signed their plans in one-parent families was 4.6 percent in 2004 and 7.3 percent in 2005. These numbers were lower for two parent families—2.6 percent and 5.7 percent in 2004 and 2005 respectively.

**Failure to Complete the Welfare-to-Work Process**

Figures 1 and 2 also show participants who failed to continue the Welfare-to-Work process, either remaining non-active or exiting GAIN altogether. While 359 participants (15 percent) from the pre-SB 1104 (2004) cohort deregistered, 319 participants (17 percent) in the post-SB 1104 (2005) cohort deregistered. Another 293 participants in 2004 (12 percent) and 307 in 2005 (16 percent) became sanctioned. Moreover, 507 participants from the pre-SB 1104 cohort (21 percent) and 383 from the post-SB 1104 cohort (20 percent) had their cases terminated, including those who became sanctioned before exiting welfare. Finally, 701 participants from the pre-SB 1104 cohort (30 percent) and 397 participants from the post-SB 1104 cohort (20 percent) did not engage in the next step after completing an activity—i.e., they did not register in GAIN, or did not show up for an Orientation or Appraisal after registering, or did not participate in Job Club after OAP. These latter participants are unaccounted for in any activity. The proportional differences between the 2004 (pre-SB 1104) and 2005 (post-SB 1104) cohorts in each of these outcome categories, along with proportional comparisons in several other categories that bear on the completion of Welfare-to-Work activities, are illustrated in Figure 3.
The Impact of SB 1104 on Welfare-to-Work Outcomes

Did SB 1104 have a notable impact on Welfare-to-Work outcomes? One way to begin addressing this issue is to ask whether there were significant differences in the outcomes generated by the pre- and post-SB 1104 cohorts analyzed here.

Critical differences are observed in conducting Chi-Squared ($X^2$) tests of statistical significance (the results of which are also given in Figure 3) on the outcome comparisons between the two entry cohorts. In this report, a significance level of 10 percent is used as the appropriate threshold for statistically significant comparisons, and all tests are run against the 10 percent level. Comparative results are deemed statistically significant if the p-values shown in the tables are smaller than .10. A detailed elaboration of the rationale behind the selection of a 10 percent significance level is given in the Technical Appendix.

Most importantly, while 4.2 percent of the pre-SB 1104 cohort signed Welfare-to-Work Plans, 7 percent of the 2005 cohort participants signed Welfare-to-Work plans. Although, these percentages are quite small, the proportion of participants signing a Welfare-to-Work plan almost doubled after the implementation of SB 1104 in 2005. Similarly, the post-SB 1104 cohort showed more favorable outcomes in the employment category. The proportion of participants who found employment increased from 14 percent to 16 percent between 2004 and 2005.

The largest difference between the two cohorts is the proportion of participants who were not engaged in another GAIN activity after completing a step,
i.e., those who were unaccounted for in any activity. This proportion dropped from 30 percent in 2004 to 20.5 percent in 2005.\textsuperscript{10}

It should be pointed out here that not all comparisons were favorable for the post-SB 1104 cohort. For example, Figure 3 shows that 16 percent of the post-SB 1104 cohort, versus 12 percent of the pre-SB 1104 cohort, was sanctioned, a difference that is statistically significant.\textsuperscript{11} Similarly, 58 percent of the pre-SB 1104 cohort, versus 66 percent of the post-SB 1104 cohort, was noncompliant (this comparison is not shown in Figure 3 because noncompliance is not an outcome but a “between” stage in the Welfare-to-Work process.

**The Speed of Implementation**

**The Duration between Steps**

Along with outcomes, it is necessary to analyze the duration of the different GAIN steps, as well as the lags between these steps, in order to obtain a better understanding of the pace of implementing Welfare-to-Work program activities for GAIN participants. Table 1 shows the mean and median durations between every step in the GAIN process. These durations include the time lags between approval for CalWORKs eligibility and registration, registration and appraisal, appraisal and Job Club, and Job Club and finding employment or signing the Welfare-to-Work Plan. The last two rows of Table 1 show the average total time between approval and finding employment and signing a Welfare-to-Work Plan. The table also shows the results of $T$-tests of statistical significance in cases where the differences in the average duration between the two cohorts are statistically significant.

**Table 1. Time Lags between Welfare-to-Work Activities**

<table>
<thead>
<tr>
<th>Time Lags (in Days)</th>
<th>Mean Duration</th>
<th>Median Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
<td>2005</td>
</tr>
<tr>
<td>Approval – Registration*</td>
<td>28.9</td>
<td>23.8</td>
</tr>
<tr>
<td>Registration – OAP 1st Session</td>
<td>10.6</td>
<td>10.6</td>
</tr>
<tr>
<td>Registration – OAP Completed</td>
<td>27.4</td>
<td>27.6</td>
</tr>
<tr>
<td>If OAP is Completed in the first session</td>
<td>16.1</td>
<td>16.4</td>
</tr>
<tr>
<td>If OAP is Not Completed in the first session</td>
<td>36.9</td>
<td>37.8</td>
</tr>
<tr>
<td>OAP Completed – JC Started</td>
<td>31.8</td>
<td>33.1</td>
</tr>
<tr>
<td>Job Club Start – Job Club End</td>
<td>23.5</td>
<td>21.8</td>
</tr>
<tr>
<td>Job Club Completed – Employment</td>
<td>7.8</td>
<td>10.5</td>
</tr>
<tr>
<td>Approval-Job Club Started</td>
<td>47.8</td>
<td>40.0</td>
</tr>
<tr>
<td>Job Club Started – W2W Plan</td>
<td>20.8</td>
<td>20.3</td>
</tr>
<tr>
<td>Approval – Employment</td>
<td>65.9</td>
<td>69.2</td>
</tr>
<tr>
<td>Approval – W2W Plan*</td>
<td>87.6</td>
<td>81.7</td>
</tr>
</tbody>
</table>

* Mean duration is statistically significant
Waiting in the Unassigned Pool

The first duration shown in Table 1 is the time lag between approval and GAIN registration. After participants are approved for CalWORKs, they are moved to an unassigned pool where they wait until they are enrolled in GAIN. The average duration in the unassigned pool was almost five days less for the 2005 cohort compared with the 2004 cohort, and this difference is statistically significant. Further analysis of this time lag showed that, while 50 percent of participants in both cohorts registered within one week after their approval, almost a quarter of them stayed in the unassigned pool for more than one month. This is translated into a large discrepancy between the mean and median times as shown in Table 1.

Delays both Before and After SB 1104

Several durations calculated for the time between registration and appraisal do not show significant differences between cohorts. The wait time from registration to the first OAP appointment was approximately 10 days for both cohorts. Other comparisons suggest that, while SB 1104 had little to no effect on lag times between GAIN steps, participants in both cohorts faced substantial delays in trying to complete their appraisal. For example, completion of OAP required almost four weeks for both cohorts. Looking at this more specifically, participants in both cohorts completed OAP in approximately 16 days when they showed up for their first session, but took 37 days to complete this step when they missed their first appointment. Another sizable delay occurred between completing the OAP and starting Job Club. This time lag exceeded one month for both cohorts.

The average Job Club required less than four weeks for both cohorts, suggesting that some participants find employment and complete Job Club in less than the allotted time for this component.

Participants Signed Welfare-to-Work Plans More Quickly After SB 1104

Table 1 indicates that the lag time between approval and finding employment was less than seven weeks for both cohorts. However, there is a significant difference between the two cohorts in the amount of time required to sign a Welfare-to-Work plan. The results therefore show that participants signed their Welfare-to-Work plans quicker after the implementation of SB 1104. The mean time difference was five days, while the median difference was over ten days. The time taken to sign a Welfare-to-Work plan excludes time in the good cause determination process, the compliance process, and curing process since they are non-countable days in determining the number of days to completion of the Welfare-to-Work plan.

Table 1 also provides information necessary to evaluate whether the implementation of SB 1104 enabled more participants to complete a WTW plan within 90 days when they begin attending Job Club/Job Search within 30 days of the determination of their eligibility for CalWORKs. While the overall time taken to start Job Club dropped in
2005, the time to sign a plan after starting a Job Club was almost the same between the two cohorts.

However, data show significant differences among those who start Job Club. Although the proportion of participants who start Job Club is small, the proportion of those who signed a plan after Job Club increased from 31 percent to almost half. Moreover, among participants who started Job club within 30 days of the determination of their eligibility, and after deducting the number of days in compliance, the proportion of participants who signed a plan within 90 days almost tripled, increasing from 9 percent to 26.6 percent between 2004 and 2005.

Figure 4 shows the distribution of the total time to sign a Welfare-to-Work plan for the 2005 cohort. Two-thirds of participants who signed a plan in the 2005 cohort did so within 90 days. However, almost 20 percent of the cohort signed Welfare-to-Work plans over periods exceeding 120 days.

**Figure 4. Distribution of the Days to Sign the Welfare-to-Work Plan for the 2005 Cohort**

Programmatic Factors Associated With Delays in Signing Welfare-to-Work Plans

Almost half of the participants who signed a Welfare-to-Work Plan in the pre-SB 1104 cohort, versus 35 percent of participants who signed a plan in the post-SB 1104 cohort, exceeded 90 days in doing so. The difference between these proportions is statistically significant. But in examining differences within the 2005 cohort between participants who signed Welfare-to-Work plans within 90 days and participants who signed plans
over periods exceeding 120 days, the data suggests that the latter group consists of significantly higher proportions of participants who spent relatively lengthy periods in the unassigned pool and/or between appraisal and the completion of Job Club.

**Regional Comparisons**

Figure 5 illustrates the proportions of participants who signed their Welfare-to-Work Plans by GAIN Regions for both cohorts, as shown on the left y-axis. The chart also plots the percentage of those participants in the 2005 cohort who signed their plans late (i.e., in periods exceeding 90 days), as shown on the right y-axis. The table includes the results of Chi-squared tests used to assess the statistical significance in the differences between cohorts in each region.

**Figure 5. The Proportion of Participants Who Signed Welfare-to-Work Plans**

![Bar chart showing the proportion of participants who signed Welfare-to-Work Plans by GAIN Regions for both cohorts, with a significant difference observed in Region 6 from 5 to 10 percent between 2004 and 2005.]

* Statistically significant

**Differences within Regions before and after SB 1104**

Cohort differences in the proportions of participants who signed Welfare-to-Work plans were statistically significant in GAIN Regions 3, 5, and 6. The largest difference is observed in Region 6, where the proportion of participants who signed a plan doubled, from 5 to 10 percent between 2004 and 2005. The differences seen in Regions 3 and 5 are also significant, where proportions increased from 6 percent to 9 percent and from 4 percent to 7 percent respectively.
Differences between Regions before and after SB 1104

Differences between regions increased after the implementation of SB 1104. This is particularly pronounced in the difference between the DPSS regions (Regions 1, 3, 4, 5, and 6) and contracted regions (Regions 2 and 7). While the proportion of participants who signed Welfare-to-Work Plans in the contract regions increased from 2.5 percent to 3.7 percent, the rate of increase in DPSS regions was higher, from 4.7 percent to 7.8 percent.

Finally, looking at participants who signed Welfare-to-Work Plans in the 2005 cohort, Figure 5 illustrates the proportion of these participants, by region, who signed their plans late. The data shows that, with the exception of Region 1, all DPSS regions produced better outcomes than the contracted regions. It should be noted here that the proportion of participants who signed their plans late in the two contract regions (Regions 2 and 7) was quite high—67 percent and 75 percent respectively. However, in Regions 3 through 6 (which are DPSS regions), only between 30 and 45 percent of participants who signed Welfare-to-Work plans did so in periods exceeding 90 days.

Closer Examinations: Estimating the Likelihood of Signing a Welfare-to-Work Plan

The Likelihood of Signing a Welfare-to-Work Plan in Six Months

Table 2 shows the results of a logistic regression model that estimates the likelihood that participants will sign a Welfare-to-Work plan within six months. This model, as well as the second regression model that follows, are especially useful because they enable a comparison of cohorts (2004 versus 2005) while holding other participant characteristics constant. Table 2 shows only those explanatory variables that are statistically significant.

Table 2. Estimating the Likelihood of Signing the Welfare-to-Work Plan in Six Months

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Odds Ratio</th>
<th>P &gt; Chi-Square</th>
<th>Percent More Likely to Sign the WTW Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort – 2005 vs. 2004</td>
<td>1.78</td>
<td>&lt; .0001</td>
<td>78% more</td>
</tr>
<tr>
<td>Region – DPSS vs. Contract</td>
<td>2.50</td>
<td>&lt; .0001</td>
<td>2.5 times more</td>
</tr>
<tr>
<td>Compliant – Yes vs. No</td>
<td>1.64</td>
<td>.0005</td>
<td>64% more</td>
</tr>
<tr>
<td>Sanctioned – No vs. Yes</td>
<td>3.75</td>
<td>&lt; .0001</td>
<td>3.75 times more</td>
</tr>
<tr>
<td>Welfare History – No vs. Yes</td>
<td>1.51</td>
<td>.005</td>
<td>51% more</td>
</tr>
<tr>
<td>Number of Adults</td>
<td>.67</td>
<td>.003</td>
<td>33% less</td>
</tr>
</tbody>
</table>
The regression model results represented in Table 2 indicate that the implementation of SB 1104 increased the odds that participants would sign a Welfare-to-Work Plan in six months by 78 percent. This effect is reflected by the cohort variable in Table 2. In addition, the regional variable (i.e., DPSS versus contract regions) shows that participants from DPSS regions are 2.5 times more likely to sign the Welfare-to-Work plan in six months than participants in regions served by ACS and Maximus.

Not surprisingly, participants who became noncompliant or sanctioned after enrollment in GAIN were less likely to sign Welfare-to-Work plans (this effect was much stronger for sanctioned participants). Participants who were not sanctioned were 3.75 times more likely to sign Welfare-to-Work plans than those participants who became sanctioned during their cohort period. Similarly, participants who were compliant were 64 percent more likely to sign their plans relative to participants who were noncompliant. Two more comparisons proved to be significant in this first model. First, participants entering CalWORKs for the first time were 51 percent more likely to sign their Welfare-to-Work Plans compared to participants with previous welfare histories. Finally, household size produced a significant effect. Each additional adult in the household made it 33 percent less likely that the participants in question would sign a Welfare-to-Work Plan. However, additional children did not produce significant results, which means that only additional adults in the household make it less likely that the participants in question will sign Welfare-to-Work plans.

As noted earlier, lower proportion of families with two-parents sign their Welfare-to-Work plans relative to one-parent families. Because only one of the parents in two-parent families may fulfill the Welfare-to-Work requirements, the proportion of participants who sign their plans can be expected to be lower in two-parent families. As a result, the addition of one adult on the case lowers the likelihood of signing the plan.

The Likelihood of Signing a Welfare-to-Work Plan in Ninety Days

The results of a second model that estimated the likelihood of signing a Welfare-to-Work Plan within 90 days (shown in Table 3) are not much different from the earlier model, with a few exceptions. The cohort effect shows that participants entering GAIN after the implementation of SB 1104 were 61 percent more likely to sign Welfare-to-Work Plans in ninety days. Therefore, participants from the 2005 cohort were not only more likely to sign their Welfare-to-Work plans but also were more likely to sign a plan within ninety days, thereby complying with the requirements of the SB 1104.
Table 3. Estimating the Likelihood of Signing the Welfare-to-Work Plan in Ninety Days

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Odds Ratio</th>
<th>P &gt; Chi-Square</th>
<th>Percent More Likely to Sign the WTW Plan in 90 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort – 2005 vs. 2004</td>
<td>1.61</td>
<td>.086</td>
<td>61% more</td>
</tr>
<tr>
<td>Region – DPSS vs. Contract</td>
<td>2.20</td>
<td>.086</td>
<td>2.2 times more</td>
</tr>
<tr>
<td>Compliant – Yes vs. No</td>
<td>1.83</td>
<td>.033</td>
<td>83% more</td>
</tr>
<tr>
<td>Language – English vs. Other</td>
<td>3.05</td>
<td>.006</td>
<td>3.1 times more</td>
</tr>
<tr>
<td>Number of Adults</td>
<td>.47</td>
<td>.098</td>
<td>53% less</td>
</tr>
</tbody>
</table>

Also similar to the results produced by the first regression model, participants from DPSS regions were 2.2 times more likely to sign the Welfare-to-Work Plan in ninety days than participants from the contract regions. Moreover, compliant participants were 83 percent more likely to sign a Welfare-to-Work Plan in a timely manner than participants with one or more incidents of noncompliance.

However, becoming sanctioned during the cohort period or earlier did not make any difference in the probability that participants would sign a Welfare-to-Work Plan within 90 days. Nor did most of the demographic factors have an impact on this outcome, with the exception of language. English-speaking participants were over three times more likely to sign a plan within ninety days relative to those participants with primary languages other than English. This is an important finding showing that Spanish-speaking participants face significant delays in signing their Welfare-to-Work plans. Language barriers may be the main factor behind these delays. A significant factor in the delays for Spanish-speaking participants is the relative lack of preparedness at Orientation and Job Club for Spanish-speakers, which leads to correspondingly longer wait times for affected participants in those components.

Analysis based on a third regression model estimates the likelihood that participants will find employment. However, since finding employment is not an outcome directly affected by SB 1104, the discussion of this third model is presented in Appendix B of this study.

Conclusions and Recommendations

The results of the analyses conducted for this study indicate that SB 1104 has had some important positive effects on the Welfare-to-Work process in the County of Los Angeles. DPSS response to SB 1104 has alleviated a number of programmatic bottlenecks participants previously faced when they entered the GAIN program. For example, the proportion of participants who failed to enroll in GAIN after being approved for CalWORKs assistance dropped by almost half. In addition, the proportion of participants not engaged in another activity after completing a step—i.e., participants unaccounted for in any GAIN activity—dropped by one third after SB 1104 was passed. The regression analyses conducted for this report underscore the positive impact of SB
1104. The models indicate that participants from the 2005 cohort are not only more likely to sign Welfare-to-Work plans but are also more likely to sign them in ninety days. These results suggest that policy steps taken in keeping with SB 1104 have improved case management, thereby increasing participation rates.

At the same time, however, although a smaller proportion of participants failed to show up for their initial appraisal appointment in the wake of SB 1104, one-in-five of the participants from the post-SB 1104 cohort (down from one in four from the pre-SB 1104 cohort) were nevertheless no-shows for these sessions, suggesting that additional steps should be taken to boost participation in this important program step. This is further emphasized by the finding in this report that more than 40 percent of participants in either cohort never showed up for their OAP session during their cohort periods. Moreover, only 13 percent of participants who completed their OAP sessions in either cohort also completed Job Club.

**Recommendation** – Conduct a systematic investigation of participants who begin but do not complete the Welfare-to-Work process. For example, DPSS could conduct an analysis of randomly selected participants who ‘fall through the cracks’ of the GAIN program, either failing to show up for their Orientation appointments, or failing to complete Job Club after their OAP sessions. If the department can gain a better understanding of what happens to these participants in the course of the Welfare-to-Work process, further steps can be taken to help them stay in the program. One preliminary step DPSS might consider taking is to have GSWs attempt to contact participants with well-structured telephone calls when they fail to show up for Orientation appointments or Job Club. The purpose of such contact would be to maintain a higher proportion of participants in the Welfare-to-Work process.

The problem of participants ‘falling through the cracks’ will become increasingly important given the changes enacted by Congress to TANF in the Deficit Reduction Act of 2005 (Pub. L. 109-171). The new TANF work participation provisions of the Deficit Reduction Act of 2005 peg the size of the Federal block grants to Welfare-to-Work participation quotas in which inactive participants will be counted in the quota denominator, thereby boosting the participation requirements for the same block grant allocations.

Under TANF law, before the passage of the Deficit Reduction Act of 2005, California had to meet a 50 percent work participation rate for all cases, minus the percentage decrease in the CalWORKs caseload since 1995, known as the caseload reduction credit. There was also a 90 percent work participation rate obligation for two-parent families and a corresponding caseload reduction credit. Since 2000, California had been able to avoid the 90 percent work participation rate for two-parent families by placing these families in a separate, California-funded program for two-parent CalWORKs families, funded with state Maintenance-of-Effort (MOE) funds. By using these separate state programs for two-parent families California was able to exclude these families from the calculation of Federal work participation rates because California had no federally funded two-parent cases.
The Deficit Reduction Act and the Reauthorization of the Temporary Assistance for Needy Families Program: Interim Final Rule issued on June 29, 2006 by the Secretary of Health and Human Services (HHS) requires that families receiving assistance under separate state programs financed with funds counted toward the State’s MOE be included in the work participation rate. The HHS TANF Interim Final rule also mandates that certain child-only cases (sanctioned cases and time-limited cases) be included in the calculation of Federal work participation rates.

The Budget enacted in California for 2006-07, along with implementing legislation (the Human Services Trailer Bill, AB 1808) calls for the California Department of Social Services to create a Temporary Assistance Program beginning April 1, 2007 for cases exempted from Federal work participation rates under current state law. If the State is able to create a non-MOE program, then two-parent families, as well as those who face substantial barriers to work, could be excluded from the new Federal work participation rate.

The changes to TANF in work requirements enacted in the Deficit Reduction Act of 2005 will become effective October 2006, and will make drastic changes in the calculation of work participation rates. California will now have to meet a work participation rate of 50 percent for all families and 90 percent for two-parent families receiving CalWORKs public assistance. In addition, California will no longer be able to take advantage of the caseload reduction credit, because starting in 2007, the new TANF law changes the base period for the caseload reduction credit to 2005. In the immediate future, the establishment of a new base period will result in the elimination of the credit because the CalWORKs caseload in California has not declined since 2005. This will result in Federal work participation rates of 50 percent for all families and 90 percent for two-parent families. Since the work participation rates in the State are significantly below the work participation rates required by the new TANF law, California will need to increase the work participation rate for CalWORKs families or face the likelihood of substantial Federal penalties.

Los Angeles County thus will need to develop strategies to increase the work participation of its existing caseload. The recent DPSS Action Plan to lower the rate of CalWORKs Welfare-to-Work sanctions attempts to address the issue of participant noncompliance by offering a series of solutions aimed at increasing Welfare-to-Work participation and reducing sanctions. This represents a significant positive step, but it will also be in the Department’s best interest to conduct a systematic investigation of participants who begin but do not complete the Welfare-to-Work process.

Recommendation – Introduce additional measures that would motivate a larger proportion of GAIN participants to sign Welfare-to-Work Plans.

After the implementation of SB 1104 in 2005, the proportion of participants signing their Welfare-to-Work Plans almost doubled. The bill has therefore had a positive impact on DPSS operations, but further steps must be taken. If we exclude participants who left
GAIN because they became employed, sanctioned, deregistered or their case was terminated, the proportion of participants who signed a plan rose from 12 to 25 percent after the implementation of SB 1104. While this is an impressive increase, it also means that three quarters of the participants who enter GAIN are still failing to sign a Welfare-to-Work Plan.

One way to begin promoting further proportional increases, much in line with the first recommendation given here, would be to conduct a study with the objective of parsing out the reasons participants fail to sign a plan. The knowledge generated from this research, in turn, could be used as the basis for formulating policy enhancements.

**Recommendation** – Boost efforts to shorten delays in the Welfare-to-Work process, especially those that impede participation in, and completion of, OAP and Job Club.

DPSS has modified its procedures in response to the implementation of SB 1104. This response has had a positive impact in shortening delays. The duration of the period between approval and the signing of a Welfare-to-Work Plan (for those participants who sign one) declined from 95 to 85 days between 2004 and 2005. Moreover, almost 60 percent of participants who signed a plan in 2005 did so within 90 days. At the same time, however, almost one quarter of the participants who signed Welfare-to-Work plans in 2005 did so in periods exceeding 120 days.

The biggest delays take place around the Appraisal stage. While the period from registration to the first OAP appointment lasted an average of 10 days for participants in the 2005 cohort, completion of the OAP session took an average of four weeks. In this respect, it is notable that these participants completed OAP in approximately 16 days when they showed up for their first OAP session. By contrast, participants took an average of 37 days to complete OAP when they missed their first appointment. Another large delay occurs between the completion of OAP and the start of Job Club. For both cohorts, the average time lag between these two components exceeded one month.

**Recommendation** – Examine why so many participants continue to remain in the “unassigned pool” for lengthy periods of time.

After participants are approved for CalWORKs assistance, they are moved to an “unassigned pool” where they wait until they are enrolled in GAIN. The average time passed in the unassigned pool was almost five days less for the 2005 cohort as compared with the 2004 cohort. However, while half of the participants in both cohorts registered for GAIN within one week of their approval, almost one quarter of the participants in each cohort stayed in the unassigned pool for more than one month.

**Recommendation** – Examine why contract regions perform poorly relative to DPSS regions.

Participants in regions served by DPSS are 2.5 times more likely to sign Welfare-to-Work plans than participants from regions managed by ACS and Maximus.
Moreover, participants in DPSS regions have a 2.2 times greater likelihood of signing the plan in ninety days than participants from regions served by ACS and Maximus.

**Recommendation** – Target Spanish-speaking participants to find out what language-related issues and other obstacles impede them from signing Welfare-to-Work Plans. This is underscored by the fact that English-speaking participants were over three times more likely to sign a plan within ninety days relative to those participants with primary languages other than English.

Most of the demographic characteristics examined in this report did not contribute to relevant outcomes, with the exception of language. English-speaking participants were over three times more likely to sign a Welfare-to-Work Plan in ninety days than participants with primary languages other than English. Because Spanish is the primary language of almost all of these non-English speaking participants, the language barrier may be the main factor behind these delays.

* * *

Each recommendation provided here has been made on the basis of the statistical results obtained by comparing two entry cohorts of CalWORKs participants, one entering before the implementation of SB 1104, and the other entering after implementation. To carry out all the recommendations put forth in this report may not be feasible. However, RES suggests that implementation of even some of these recommendations will likely lead to increases in the proportion of GAIN participants signing Welfare-to-Work plans within ninety days of program eligibility.
Appendix A

Technical Appendix

This report monitors GAIN case flows before and after the implementation of SB 1104. In connection with this, the study presents an impact evaluation assessing the effectiveness of SB 1104 in increasing the proportion of GAIN participants who sign Welfare-to-Work Plans in 90 days. Impact evaluations are useful when the objective is to test the effectiveness of new efforts to solve specific problems. Impact analyses typically involve a comparison between outcomes for program participants and outcomes for a control group. To undertake such a comparison, appropriate scientific methods and controls must be employed in the sampling, data collection, and data analysis steps to ensure that the estimated program impacts are unbiased. These methods are summarized in this technical appendix.

Study Populations and Case Flowcharts

This study analyzes two entry cohorts—one from 2004 and the other from 2005. The 2004 cohort includes all participants who were approved for CalWORKs during January 2004. Only those participants 18 years of age or older were included. Participants from RITE offices were excluded since they are not affected by SB 1104. After excluding these participants, the 2004 cohort had 2,757 participants who were approved for CalWORKs in January, and the 2005 cohort had 2,244 participants.

As shown in Figures 1 and 2, the study also excludes Cal-Learn participants and participants exempted at least once during their cohort period. After this adjustment, the 2004 and 2005 cohorts had 2,360 and 1,905 participants respectively. The characteristics of cohort populations are tabulated in Table A-1 below.

Figures 1 and 2 illustrate the flow of cases among several Welfare-to-Work activities. The figures are color coded to clearly show the connections between different steps. Green blocks refer to exemptions and Cal-Learn exclusions. Gray blocks show Welfare-to-Work activities—registration, Orientation, and Job Club. Blue blocks refer to populations that completed an activity. Yellow blocks show all outcome categories analyzed in this study, such as participants who signed a Welfare-to-Work Plan, became employed, became sanctioned, and so on.

Finally, Figures 1 and 2 feature three other circles, colored in red, purple, and orange, which show participants who fell through the cracks of the GAIN program after completing one activity. The red circles denote participants who never registered after being approved for CalWORKs. Purple circles denote participants who registered but never showed up for their Orientation. Finally, the orange circle corresponds to participants who completed their appraisal but failed to show up for Job Club or any other GAIN activity. These circles are connected to outcome categories and their colors enable the reader to identify these connections. That is, in the four outcome categories
placed on the right-hand side of the flowchart, there are four lines, each referring to where participants come from by their colors.

Table A1. Characteristics of 2004 and 2005 Cohort Participants

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>2004 Cohort % N=2,360</th>
<th>2005 Cohort % N=1,905</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>78.9</td>
<td>76.5</td>
</tr>
<tr>
<td>Male</td>
<td>21.1</td>
<td>23.5</td>
</tr>
<tr>
<td><strong>Age Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>25.4</td>
<td>26.0</td>
</tr>
<tr>
<td>25-30</td>
<td>23.7</td>
<td>24.3</td>
</tr>
<tr>
<td>31-39</td>
<td>27.9</td>
<td>27.9</td>
</tr>
<tr>
<td>40 and Older</td>
<td>23.0</td>
<td>21.8</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>66.7</td>
<td>67.4</td>
</tr>
<tr>
<td>Married</td>
<td>22.0</td>
<td>21.6</td>
</tr>
<tr>
<td>Other</td>
<td>11.3</td>
<td>11.0</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>25.6</td>
<td>25.2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>51.7</td>
<td>51.7</td>
</tr>
<tr>
<td>Other</td>
<td>9.0</td>
<td>10.4</td>
</tr>
<tr>
<td>White</td>
<td>13.7</td>
<td>12.7</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>83.2</td>
<td>84.6</td>
</tr>
<tr>
<td>Non-English (Spanish)</td>
<td>16.8</td>
<td>15.4</td>
</tr>
<tr>
<td><strong>Welfare History</strong></td>
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<td></td>
</tr>
<tr>
<td>Yes</td>
<td>49.6</td>
<td>47.4</td>
</tr>
<tr>
<td>No</td>
<td>50.4</td>
<td>52.6</td>
</tr>
<tr>
<td><strong>If Compliant during Cohort Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>41.5</td>
<td>33.2</td>
</tr>
<tr>
<td>No</td>
<td>58.5</td>
<td>66.8</td>
</tr>
<tr>
<td><strong>If Sanctioned during Cohort Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>16.6</td>
<td>20.9</td>
</tr>
<tr>
<td>No</td>
<td>83.4</td>
<td>79.1</td>
</tr>
<tr>
<td><strong>If Sanctioned before Cohort Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>11.8</td>
<td>13.0</td>
</tr>
<tr>
<td>No</td>
<td>88.2</td>
<td>87.0</td>
</tr>
<tr>
<td><strong>GAIN Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPSS</td>
<td>79.4</td>
<td>81.6</td>
</tr>
<tr>
<td>Contract</td>
<td>20.6</td>
<td>18.4</td>
</tr>
<tr>
<td><strong>Number of Children-Mean</strong></td>
<td>1.9</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Number of Adults-Mean</strong></td>
<td>1.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

* Numbers include both aided and unaided children and adults in a household.

Participants versus Cases

This study uses participants rather than cases as the unit of analysis. Since some cases contain two aided parents (two-parent families), an additional parent in a
household has implications for the results presented in this report. In those households with two parents, we can expect one of the parents to fulfill Welfare-to-Work requirements while the other parent does not. Hence, the proportion of participants signing a plan would be different among one-parent and two-parent families.

However, using cases as the unit of analysis makes it more difficult to track participants over time in their Welfare-to-Work flow. Moreover, multivariate analysis would be distorted if case were used as the unit of analysis since many of the variables are person-level variables. Finally the flow analysis shows that Welfare-to-Work patterns of one-parent and two-parent families were not significantly different.

The proportion of cases with two-parents was 10.6 percent in 2004 and 9 percent in 2005. The number of participants coming from two-parent families dropped from 19 percent to 16.5 percent between the 2004 and 2005 cohorts.

Study Design

This study sets up a *longitudinal quasi-experimental design* to evaluate the effectiveness of SB 1104 in increasing the likelihood that GAIN participants would sign Welfare-to-Work plans in 90 days. This experimental design is based on a cohort comparison method that examines outcomes over time for multiple groups of participants (entry cohorts) that each experience differing sets of policy circumstances. In theory, the best way to conduct an impact evaluation is by means of a *randomized experiment*, where individuals are assigned at random to the treatment or control group. However, it was not practical to design a randomized experimental study for this report. As a result, a quasi-experimental model was the only satisfactory way to proceed.

Quasi-experimental designs may suffer from two problems. First, there is the possibility of real changes in the study environment, which is referred to as the problem of “external validity.” Changes in the environment such as an economic upturn or downturn occurring at the same time as the program may change the behavior of participants so that the impact of the program cannot be distinguished from the effect of the environment. Second, there is the possibility that the study subjects may not be representative of the population in question, which is referred to as the problem of “internal validity.” This problem occurs when there are systemic and significant differences between the characteristics of experimental and control group participants. As a result, pre-program differences may be confused with program effects.

Since the entry times for the two cohorts studied in this report are quite close (one year apart), external factors are not likely to have influenced the impact of the program. The problem of internal validity can be handled by statistically controlling for significant differences between groups in areas such as age, sex, and ethnicity, so as to approximate random assignment as closely as possible. Since cohorts are selected based on their entry time, cohort members are expected to be similar. Table A-1 includes all variables used in the regression models. The table confirms that there are no significant differences between the 2004 and 2005 cohort groups.
Significance Level

All statistical conclusions involve constructing two mutually exclusive hypotheses, termed the null (H₀) and alternative (H₁) hypotheses. These hypotheses describe all possible outcomes with respect to an inference. A researcher is frequently confronted with the challenge of selecting the correct hypothesis, or at least the hypothesis that has the most validity based on the available empirical evidence. In evaluation research, where the main focus is on assessing the effectiveness of social programs, competing hypotheses are typically examined in terms of program effects and are shown as follows:

\[
H_0 : \text{Program Effect} = 0 \\
H_1 : \text{Program Effect} <> 0 \text{ (not equal to 0)}
\]

The null hypothesis is so termed because it usually refers to an outcome in which there is "no difference" or "no effect" indicated by a comparison. Usually in social research it is expected that evaluated programs will make a difference, and for this reason a program effects is seen as consistent with the alternative hypothesis (as against the null hypothesis).

Significance tests assist researchers in parsing out the validity of competing hypotheses. The result of a significance test depends on the selection of a significance level along with the sample size used for the comparison. Significance levels show you how likely a result is due to chance. In most social research, the "rule of thumb" is to set significance levels at 5 percent, which is labeled as alpha (α). Significance levels show the odds that the observed result is due to chance. When the test statistic (such as the result of a chi-square test) is less than the selected α level, the null hypothesis ("no difference"/"no effect") is rejected in favor of the alternate hypothesis. Under these circumstances, the researcher is able to conclude that there is a program effect. For example, if a chi square test shows a probability of .04, it means that there is a 96 percent (1-.04=.96) chance that the program outcomes between different groups are different, or there is a 4 percent likelihood that the difference or program effect may occur due to chance or randomness.

A significance level (or α) also refers to the probability of rejecting the null hypothesis when in reality the null hypothesis is correct. This is called a Type I Error. A Type I error, in other words, refers to the likelihood of concluding that there is a program effect, i.e., rejecting the null hypothesis when in reality there is insufficient evidence to determine the presence of a program effect. This is the odds of confirming our theory (program effect) incorrectly. On the other hand, there is a Type II Error, labeled as beta (β), which refers to the odds of generating a "no program effect" outcome when in fact there is such an effect. The type II error, in other words, is the odds of not confirming a theory that is true. 1- β is known as the power of a test. The power of a test is the ability of a statistical test to detect true effects when they exist. Thus, power is the probability that a null hypothesis is rejected when it is false, i.e., the probability that you will detect the program effects when they exist.
Researchers prefer to have the power of a test be as large as possible in order to minimize false negatives or capture true effects when they exist. On the other hand, researchers also prefer to keep the significance level small to minimize false positives. However, there is a trade-off between these two possibilities. The lower the $\alpha$, the lower the power and vice versa. The more stringent a significance level is, the greater the likelihood a researcher will mistakenly conclude that the response was ineffective when it actually worked. The less stringent a level is, the greater the possibility that the researcher will mistakenly endorse a response that in reality has no effect.

It is generally accepted that a significance level set at 5 percent is optimal. However, 5 percent is essentially an arbitrary selection. The 5 percent level comes from academic publications, where a theory usually has to have at least a 95 percent chance of being correct to be considered worth communicating to a larger research community. Moreover, many academic papers test strictly controlled experimental designs where confounding factors and data problems are less influential. But, why should alpha values be so small? Why put such a premium on not incorrectly accepting alternative hypotheses? It is understandable that in scientific experiments researchers ought not to put their faith in conclusions unless the conclusions are backed by strong empirical evidence. However, in evaluating public programs, the significance level may be less stringent. Usually, these programs are designed in response to serious problems. Environments cannot be controlled and data measures cannot be perfect. Moreover, researchers should be sensitive to the concerns of policymakers of accidentally rejecting the effectiveness of a good program.

For instance, if a test shows a .06 probability, it means that it has a 94 percent chance of being true. Although, in this example, researchers may not be as certain to establish a position empirically as if they had a 95 percent chance of being true, nevertheless the odds still are that the theory under investigation is true. In the public policy world if something has a 90 percent chance of being true (probability = .1), it cannot be considered proven, but it is probably better to act as if it were true rather than false. Hence, in deciding the rejection or acceptance of research hypotheses this report established a 10 percent significance level as its standard and conducted all significance tests against this level.

**Multivariate Regression Models**

The easiest way to conduct an impact evaluation is to compare the values of outcome variables for the experimental and control groups and apply some simple statistical tests to measure the differences. However, outcome differences are very likely to reflect factors other than the impact of the intervention. For this reason, the differences may change when we control for other factors that influence outcomes. The precision of estimation increases when other factors that help explain variations in outcome measures are included. This requires using more complex multivariate methods. The regression models used in this study specify that the outcome variables are (linear) functions of a set of explanatory variables. The coefficient of each explanatory variable
represents the effect of a change in the explanatory variable on the outcome, holding all other factors constant.

One of the explanatory variables should be a dummy variable to indicate whether a participant is in the treatment group, in which case the estimated coefficient of the treatment dummy is the treatment effect. Dummy variables act like switches that turn various parameters on and off in the regression equation. Another dummy variable used in the model shows the effect of GAIN region by comparing DPSS regions to contract regions. One of the regression models also included several other variables, such as non-compliance and sanction indicators, welfare history, several demographic factors, and household size.

Since outcome variables estimated in this study are categorical, logistic regression models are used. A general form for these models is shown below where i indexes observations, K is the number of explanatory or predictor variables, and n denotes sample size.

\[ Y_i = a_0 + a_1 T_i + a_2 R_i + b_1 X_{i1} + b_2 X_{i2} + \ldots + b_K X_{iK} + e_i \quad i = 1, \ldots, n \]

- \( Y_i \) = Outcome score for the \( i \)th unit (participant)
- \( a_0 \) = Coefficient for the intercept
- \( a_1 \) = Coefficient for the treatment dummy (2005 cohort vs. 2004 cohort)
- \( a_2 \) = Coefficient for the region dummy (DPSS region vs. contract region)
- \( T_i \) = 1 if \( i \)th unit is in the treatment group (2005 cohort)
  - 0 if \( i \)th unit is in the control group (2004 cohort)
- \( R_i \) = 1 if \( i \)th unit is from a DPSS region
  - 0 if \( i \)th unit is from a contract region
- \( X_{i1} \) = First explanatory variable used in the model for the \( i \)th unit
- \( X_{iK} \) = \( K \)th explanatory variable used in the model for the \( i \)th unit

In the logistic regression models used in the study, the effects of explanatory variables are measured using odds-ratios. The odds of an event are calculated as the number of events divided by the number of non-events. For example, the odds of signing a Welfare-to-Work Plan are equal to the proportion of participants who signed a plan divided by the proportion of those who did not sign. An odds ratio is calculated by dividing the odds in the treated group by the odds in the control group. The odds ratio is a way of comparing whether the probability of a certain event is the same for two groups. An odds ratio of 1 implies that the event is equally likely in both groups. An odds ratio greater than one implies that the event is more likely in the first group. An odds ratio less than one implies that the event is less likely in the first group.

However, the interpretation of the odds ratio is not straightforward. For example, the odds ratio of 1.78 for the cohort effect in Table 2 shows that the odds of signing a Welfare-to-Work plan after the implementation of SB 1104 is 78 percent higher than the odds of signing a plan before SB 1104 became effective. The odds ratio is a relative measure of risk, telling us how much more likely it is that someone who is exposed to
the factor under study will develop the outcome as compared to someone who is not exposed. However, the odds ratio is distinct from relative risk, which is the relative probability or likelihood of attaining an outcome such as signing a Welfare-to-Work Plan. Relative risk is easier to interpret but cannot be used within the design employed for this study.

**Outcome Measures**

This study uses two major categorical outcome measures (1 if yes, 0 if no) to evaluate the effectiveness of SB 1104. The first outcome measure is *signing a Welfare-to-Work plan* within 6 months after being approved for CalWORKs. If a participant signed a plan within this time frame, the outcome was assigned a value of 1. Otherwise, the outcome for this measure was assigned a value of 0.

A second outcome measure used in the study was *signing a Welfare-to-Work plan* within 90 days after being approved for CalWORKs. This is the time period within which SB 1104 stipulates that Welfare-to-Work participants should have their plans signed. If a participant signed a plan within this time frame, the outcome was assigned a value of 1. Otherwise, the outcome for this measure was assigned a value of 0.

Finally, a third outcome measure used is *finding employment* within 6 months after being approved for CalWORKs. This outcome measure is presented in Appendix B.

**Data Sources**

For both cohorts GEARS and LEADER, data files were used to collect data on several data elements, such as demographic information, welfare tenure, GAIN region, non-compliance and sanction histories, and Welfare-to-Work participation data. The data fields were collected for these participants starting from January 2004 and January 2005 through their cohort periods for each cohort.
Appendix B

The Likelihood of Finding Employment

Although finding employment is not an outcome directly affected by SB 1104, it is nevertheless instructive to look at the chances participants would do so before and after SB 1104 was implemented, and to compare this cohort effect with the effects of other factors (holding cohort constant).

Table B1 shows that the cohort effect is still significant but weaker than the effect produced in the first two regression models presented in the main body of this report. Moreover, in this third model, cohort is no longer the most powerful explanatory variable. Participants with no sanction incidents during their cohort periods were more than four times more likely to find a job than sanctioned participants. However, the compliance effect was reversed. Participants with noncompliance incidents were 32 percent more likely to find employment relative to compliant participants. This may be explained to some degree by the fact that participants may stop complying when they are close to finding work.

Table B1. Estimating the Likelihood of Finding Employment

<table>
<thead>
<tr>
<th>Explanatory Variables</th>
<th>Odds Ratio</th>
<th>P &gt; Chi-Square</th>
<th>Percent More Likely to Find a Job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort – 2005 vs. 2004</td>
<td>1.19</td>
<td>.046</td>
<td>19 % more</td>
</tr>
<tr>
<td>Compliant – Yes vs. No</td>
<td>1.32</td>
<td>.004</td>
<td>32 % more</td>
</tr>
<tr>
<td>Sanctioned – No vs. Yes</td>
<td>4.28</td>
<td>&lt; .0001</td>
<td>4.3 times more</td>
</tr>
<tr>
<td>Marital Status – Married vs. Single</td>
<td>1.56</td>
<td>.005</td>
<td>56 % more</td>
</tr>
<tr>
<td>Marital Status – Other vs. Single</td>
<td>1.19</td>
<td>.72</td>
<td>19 % more</td>
</tr>
<tr>
<td>Age – 25-30 vs. 18-24</td>
<td>1.27</td>
<td>.031</td>
<td>27 % more</td>
</tr>
<tr>
<td>Age – 31-39 vs. 18-24</td>
<td>1.14</td>
<td>.49</td>
<td>14 % more</td>
</tr>
<tr>
<td>Age – older then 40 vs. 18-24</td>
<td>.95</td>
<td>.094</td>
<td>5 % less</td>
</tr>
<tr>
<td>Gender – Male vs. Female</td>
<td>1.43</td>
<td>.001</td>
<td>43 % more</td>
</tr>
<tr>
<td>Number of Adults</td>
<td>.68</td>
<td>.0001</td>
<td>32 % less</td>
</tr>
</tbody>
</table>

Unlike what was observed with the first two regression models, the demographic characteristics of participants made a difference while the region variable is not significant. Gender, age and marital status all influenced the likelihood of finding a job. Male participants were 43 percent more likely to be employed than female participants. Married participants were 56 percent more likely to find a job than single participants. Finally, participants in the 25-30 age group had the highest likelihood of finding a job. Interestingly, each additional adult in the household decreased the likelihood of finding employment by 32 percent. Since being married works in the other direction, it is quite likely that an additional adult supports the household and the participant may survive without being employed thanks to this support.
Endnotes

1 However, there are exceptions. Participants are referred to Job Club after OAP only if they do not need specialized supportive services and or are not in a Self-Initiated Program (SIP). For example, if a participant is already enrolled in an approvable SIP, she/he will sign a WTW plan and be referred to SIP.

2 However, participants who start working full-time are not required to sign a WTW Plan. Additionally, participants who self declare or through GSW’s screening (GN 6140-Screening for Substance Abuse and Mental Health), and are in need of specialized supportive services may be referred to clinical assessment, sign a WTW plan, and are not required to go through regular GAIN flow.

3 A recent study conducted by the Research and Evaluation Services unit within the County of Los Angeles’ Chief Administrative Office showed that about one-quarter of the participants that registered in the GAIN program between April 2002 and September 2003 were sanctioned. Slightly less than half (46 percent) of these participants were noncompliant but were not sanctioned because they returned to compliance within 21 days, while 28 percent were always compliant. (Moreno, Manuel, et al., Study of Sanctions Among CalWORKs Participants in the County of Los Angeles: Who, When, Why? Prepared for: County of Los Angeles Department of Public Social Services. County of Los Angeles Chief Administrative Office, Service Integration Branch, Research and Evaluation Services, March 2005. P. xii.

4 It is important to note that the 90-day period excludes time an individual spends in the good cause determination, compliance, and curing processes. However, it is expected that any interruption in the flow of activities lead to delays and makes it difficult for participants to sign their Welfare-to-Work plans in time.

5 In this study, participants are tracked through their cohort periods until they reach one of these outcomes. In other words, their first spell in the GAIN program is studied. Many of these participants started second (and in some cases more) cycles within six months that could have resulted in different outcomes. Many participants, for example, registered in GAIN again after being deregistered earlier, or returned to welfare after being terminated. However, it is beyond the scope of this study to analyze multiple spells in the GAIN program for all these participants.

6 Only participants who were 18-years-of-age or older were included in this study, and participants in areas served by RITE offices are excluded based on the approved original research plan. RITE participants constitute less than 1 percent of each cohort study and their exclusion should not affect the results of the study.

7 The raw number of participants who moved on to Job Club after OAP was 574 for the 2004 cohort and 495 for the 2005 cohort. While these numbers represent 55 percent of the participants in each cohort who completed OAP, they represent 24 percent of the overall 2004 cohort and 26 percent of the overall 2005 cohort.

8 The $X^2$ test shows that the difference in the proportions of participants signing Welfare-to-Work plans are significant.

9 The $X^2$ test shows that the difference in the proportions of participants obtaining employment are significant.

10 The $X^2$ test shows that the difference in proportions of participants unaccounted for in any activity is significant.

11 The $X^2$ test shows that the difference in proportions of sanctioned participants are significant.
The *T*-test shows that the difference between the two cohorts in the amount of time it takes to sign a Welfare-to-Work Plan is significant.

Table 1 shows that the mean and median durations to sign a Welfare-to-Work plan differ for both cohorts. However, the difference is significantly higher for the 2005 cohort. If the data is normally distributed—a symmetric distribution with well-behaved tails and a single peak at the center of the distribution—then the mean and median are almost equivalent. However, if the distribution is skewed, i.e., not symmetric the mean and median are not the same. The mean is pulled in the direction of the skewness. As in the case of 2005 cohort, if the right tail is heavier than the left tail, the mean will be greater than the median which means that there are some outliers or participants who had signed their plans at significantly long periods.

The $X^2$ test shows that the difference in the proportions of participants signing Welfare-to-Work plans in 90 days after starting a job club are significant.

The time to sign a Welfare-to-Work plan excludes time in good cause determination, compliance, and curing processes.

The $X^2$ test shows that the difference in the proportions of participants signing Welfare-to-Work plans later than 90 days is significant.

The model makes estimates based on the stepwise regression method and only those explanatory variables found to be significant are included in the model and their effects are shown in the table. See the Technical Appendix for additional details.

In this report, for the sake of simplification, the term “likely” is widely used to describe the effect on the probability of an outcome. However, since logistic regression models are used, the correct terminology is the change in the “odds” of an outcome to happen as elaborated in the Technical Appendix.