ORANGE COUNTY
WORKFORCE INVESTMENT BOARD

# Cost Benefit Analysis Report

**Program Year 2004—2005**

Report Prepared

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## Executive Summary

The Orange County Workforce Investment Board (OCWIB) provides funding for a variety of comprehensive training and placement services for employed, unemployed and underemployed individuals through the northern and southern Orange County One-Stop Centers as well as Rapid Response and business assistance through the northern and southern Business Service Centers. During the 2004-2005 program year, the One-Stop Centers provided access to a variety of job search services, training programs, job listings, and business services to over 43,000 customers. The Adult and Dislocated Worker programs provided staff assisted job search, intensive, and training services to several hundred individuals. The Business Service Centers provided customized outplacement services to 135 area businesses laying off over 6,700 employees.

The Workforce Investment Act (WIA), other government grants, and additional contributions provide over $6,500,000 in funding for these services. The purpose of this study is to estimate the return the government earned on that $6,500,000 investment. To address this question, we have developed a Cost Benefit Analysis model. This model describes the sources of value returned to the government by the services provided at the One-Stop Centers and Business Service Centers.

The government benefits from these programs in several ways. First, individuals successfully obtaining jobs pay a variety of taxes. Second, individuals returned to work spend much of their income in the community, thereby increasing the income, and the taxes paid by others. Finally, a number of indirect benefits result from an individual obtaining employment. Newly employed individuals are less likely to receive government assistance. In addition, newly employed individuals gain a variety of personal benefits and provide a variety of benefits to the community.

**Our analysis indicates that OCWIB funded programs provided a return of $12,678,059 to $14,800,202 on an investment of $6,507,435 during the 2004-2005 program year. This equates to a Cost Benefit of 195%-227%.**

This estimated cost benefit does not include any consideration of the value of personal and family benefits participants derive from WIB funded programs. We also do not estimate the cost savings to the government from the participants' reduced demand for public services. Thus, our estimate significantly under-estimates the total value created by these programs. Even with these limitations, the estimate is impressive and compares favorably with even the most attractive business investments.

In this report, we detail our methods for arriving at these estimates, the calculations and assumptions that provide the basis for these estimates, and the limitations of our analysis.

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# I. Introduction

The Orange County Workforce Investment Board (OCWIB) provides funding for a variety of comprehensive training and placement services for unemployed and underemployed individuals through the northern and southern Orange County One-Stop Centers, the Business Service Centers (including the Rapid Response program). The Workforce Investment Act (WIA), other government grants and additional contributions provide over $6,500,000 in funding for these services.

In this study, we provide an objective, independent analysis of the return to the government earned on that $6,500,000 investment. WIB funded programs provide several sources of value to the individual participants, their families and the community. Some of these sources of value result directly in increased government revenues and decreased government costs. Others indirectly affect government costs and revenues. Still other sources of value enhance social welfare in ways inherently difficult to value. Consequently, estimating the cost benefit of OCWIB funded programs is particularly difficult and inevitably requires considerable subjective judgment.

Our analysis focuses on significant sources of economic value to the government. This study is guided by the Cost Benefit Analysis model developed and depicted in Figure 1. This model describes the sources of value returned to the government by the One-Stop Centers, Business Service Centers, Dislocated Worker and Adult programs. This report relies on data provided to us by program administrators for the analysis.

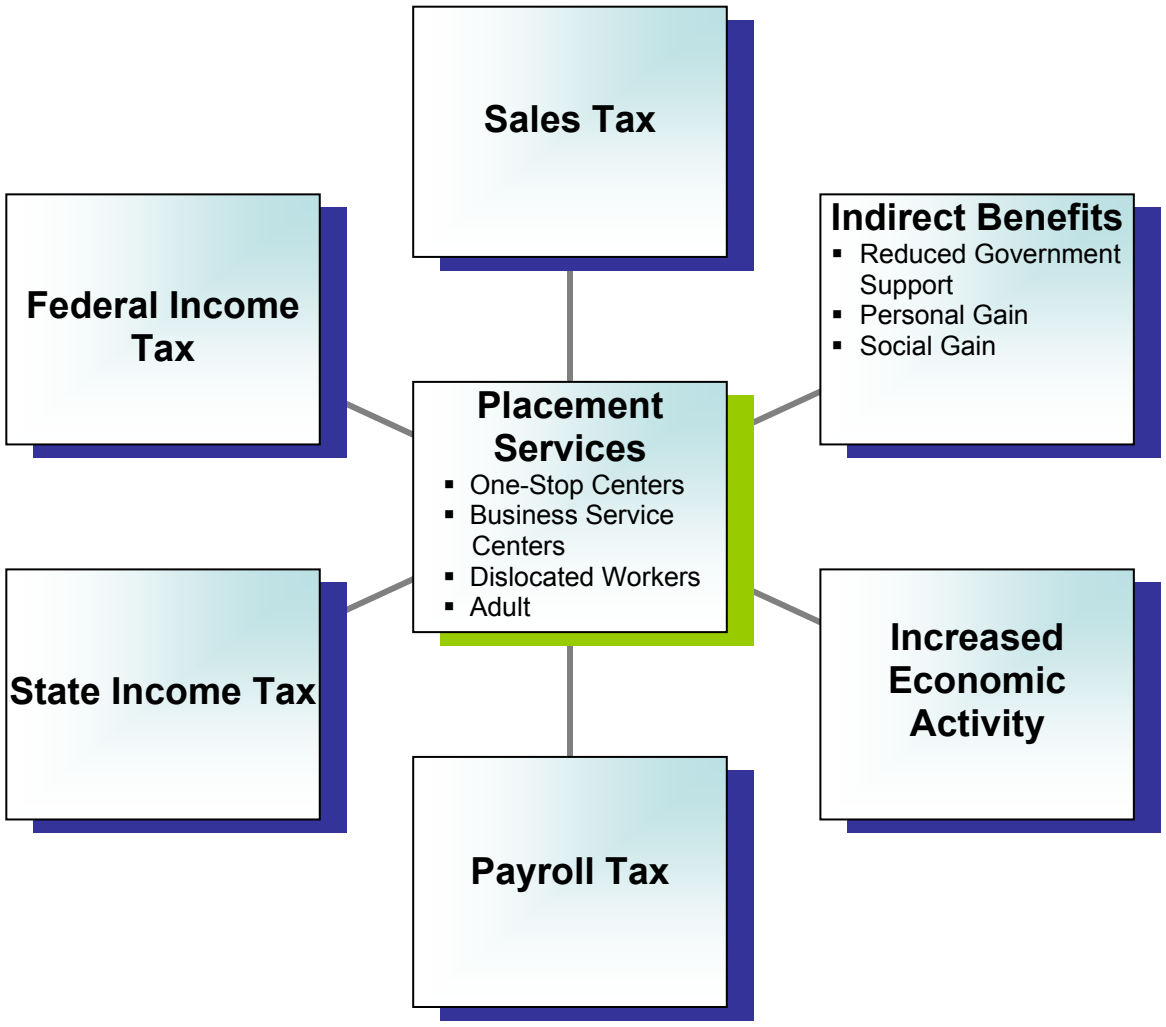
The model depicted in Figure 1 highlights the primary sources of value created by WIB funded programs. First, individuals successfully obtaining jobs pay a variety of taxes. Second, individuals returned to work spend much of their income in the community, thereby increasing the income and the taxes paid by others. Finally, a number of indirect benefits result from an individual obtaining employment. Newly employed individuals are less likely to receive government assistance. In addition, newly employed individuals gain a variety of personal benefits and provide a variety of benefits to the community.

**Our analysis indicates that WIB funded programs provide a return of $12,678,059 to $14,800,202 on an investment of $6,507,435 during the 2004-2005 program year. This equates to a Cost Benefit of 195%-227%.**

In this report, we detail our methods for arriving at these estimates, the calculations and assumptions that provide the basis for these estimates, and the limitations of our analysis. Section II details our estimates of the annual taxes paid by Adult and Dislocated Worker program participants. Section III details our estimates of the tax revenue gains provided by the economic activity induced by the increased spending of program participants. In section IV, we combine these two sources of tax revenues to provide estimates of the total tax revenue gains resulting from the Adult and Dislocated Worker programs. Section V describes indirect gains from successful job placement that are potentially significant, but not valued in this report. Sections VI and VII provide estimates of the value generated by the One-Stop Centers and Business Service Centers. This report concludes with Section VIII, a summary of the calculations for the

total Cost Benefit from the One-Stop Centers, Business Service Centers, Dislocated Worker and Adult programs.

**Figure 1**
**Cost Benefit Analysis Model**



## II. Annual Taxes Paid by Participants

Estimating the increase in tax revenues associated with training and placing an individual in a job requires estimating the annual income of the individual placed and the applicable tax rates. The State of California Employment Development report called the "Base Wage Report" provides data regarding the results of WIA programs. The Base Wage Report for this period for Orange County details quarterly income for two quarters before a person enrolls in the WIA programs and up to five quarters after exiting the program for 157 dislocated workers and 190 adults exiting in the 2004-2005 program year.

### Estimating Annual Income

The most recent base wage report available as of 5/22/06 provides data for participants exiting in the 2004-2005 program year. Traditionally, the average income in the second and third quarters following program exit serve as a key performance indicator for WIA programs. However, reported income rises substantially over the subsequent three quarters. For example, average quarterly earnings in the fifth quarter are almost 10% higher than the average of the second and third quarters. Therefore, we believe fifth quarter earnings provides a more appropriate estimate of annual income than the average of the second and third quarters.

The Base Wage Report provides data for the fourth quarter following program exit only for individuals exiting before 9/30/2004. For individuals exiting after this date, the Base Wage Report provides data for fewer quarters following program exit. Therefore, we estimate annual income using two methods. The first method reported in Table 1a estimates annual income as 4 times the quarterly earnings for the latest quarter available. The latest quarter varies based on the date of program exit. Using this method, average annual income was estimated to be $36,976 for the 157 dislocated workers, $28,172 for the 190 adults, and $32,155 for all 347 individuals listed in the base wage report.

The second method reported in Table 1b estimates annual income as 4 times the *projected* fifth quarter earnings. For individuals for which fifth quarter earnings are reported, we simply use that number. For participants exiting too late for this data to be available, we multiply the latest quarter available by the average growth in earnings to obtain an estimate of fifth quarter earnings. Using this method, average annual income was estimated to be $39,248 for the 157 dislocated workers, $29,836 for the 190 adults, and $34,094 for all 347 individuals listed in the base wage report.

## Estimating Tax Rates

The government earns cost benefit on its investment in OCWIB funded programs, primarily, through the increased tax revenues paid by the participants whose income has increased. In this study, we estimate increases in payroll tax, federal income tax, state income tax, and sales tax. We estimate the following tax rates:

| | |
|---|---|
| Payroll tax | 15.30% |
| Federal Income Tax | 7.40% |
| State Income Tax | 1.40% |
| Sales Tax | 7.75% |

Payroll tax includes employee and employer paid social security and medicare taxes. The sales tax rate in Orange County during the period of this study was 7.75%. The California Franchise Tax Board reports that an average of 38% of income is spent on taxable good and services. Therefore, we apply the 7.75% sales tax rate to 38% of estimated annual earnings.

Federal and state income taxes paid depend on the household income and various deductions available. Since we do not have information on earnings by household members, other than the participants, we estimate tax rates as the effective tax rate on households earning between $30,000 and $50,000 as reported by the IRS and California Franchise Tax Board.

Based on these estimated tax rates, this study estimates total tax liability as 27.045% of annual income. Tables 1a and 1b detail the estimated annual tax revenues provided by participants exiting the dislocated worker and adult programs between 7/1/2004 and 6/30/2005. We estimate annual taxes paid by participants to be $1,570,025 - $1,666,496 for dislocated workers, $1,447,632 - $1,533,138 for adults and $3,017,657 - $3,199,633 overall.

## Table 1a
## Estimated Tax Gains from Placement

***Income annualized based on earnings in latest reported quarter***

| Program | Income | Payroll Tax[1] | Federal Income Tax[2] | State Income Tax[3] | Sales Tax[4] | Total |
|---|---|---|---|---|---|---|
| Dislocated Worker | $5,805,232 | $888,200 | $429,587 | $81,273 | $170,964 | **$1,570,025** |
| Adult | $5,352,680 | $818,960 | $396,098 | $74,938 | $157,636 | **$1,447,632** |
| **Total** | **$11,157,912** | **$1,707,161** | **$825,685** | **$156,211** | **$328,601** | **$3,017,657** |

[1] Payroll tax rate 15.30 %
[2] Federal Income Tax Rate 7.40 %
[3] State Income Tax Rate 1.40 %
[4] Sales Tax Rate 7.75 % on 38% of income

## Table 1b
## Estimated Tax Gains from Placements

***Income annualized based on projected earnings in fifth quarter following program exit.***

| Program | Income | Payroll Tax[1] | Federal Income Tax[2] | State Income Tax[3] | Sales Tax[4] | Total |
|---|---|---|---|---|---|---|
| Dislocated Workers | $6,161,936 | $942,776 | $455,983 | $86,267 | $181,469 | **$1,666,496** |
| Adult | $5,668,840 | $867,333 | $419,494 | $79,364 | $166,947 | **$1,533,138** |
| **Total** | **$11,830,776** | **$1,810,109** | **$875,477** | **$165,631** | **$348,416** | **$3,199,633** |

[1] Payroll tax rate 15.30 %
[2] Federal Income Tax Rate 7.40 %
[3] State Income Tax Rate 1.40 %
[4] Sales Tax Rate 7.75 % on 38% of income

## III. Tax Gains from Increased Economic Activity

WIB funded placement services result not only in employment and income gains for the participants, they also increase economic activity in the community due to the increased spending of the newly placed participants. As individuals' incomes rise because of placement in a job, they tend to purchase more goods and services. These purchases provide increased income to the providers of those goods and services. Thus the total increase in income to the community is a multiple of the annual earnings of the participants in WIB funded programs. This economic activity induced by increased spending from program participants results in a second source of tax revenues. To determine the amount of increased tax revenues induced by increased participant income, we estimated an income multiplier and tax rates paid on that induced income.

The income multiplier is unobservable and therefore, somewhat speculative. It depends on the amount of income spent and what it is spent on. Factors such as age, wealth, family circumstances, and other unknown factors influence the multiplier effect. In this study, we estimate the multiplier to be between 1.6 and 2.0. A multiplier of 2.0 assumes that the income of participants results in an equal increase in income in California for other individuals benefiting from the increased economic activity. A multiplier of 1.6 assumes that the income of participants results in an increase in income in California for other individuals benefiting from the increased economic activity equal to 60% of participants' income.

The tax rates for the income generated by participant spending are estimated as follows:

| | |
|---|---|
| Payroll tax | 15.30% |
| Federal Income Tax | 13.20% |
| State Income Tax | 4.00% |
| Sales Tax | 7.75% |

We estimate payroll tax rates and sales tax rates to be identical to those paid by program participants. Federal and State Income tax rates were estimated as the average effective tax rates reported by the IRS and Franchise Tax Board for all income groups. These effective tax rates are higher than for the participants because household income for the participants is estimated to be lower than the national and state averages.

Tables 2a and 2b report the tax revenue gains resulting from the increase in economic activity induced by the spending of program participants assuming an income multiplier of 2.0. Table 2a relies on estimates the annual income of participants using the latest available quarter. Table 2b relies on estimates of the annual income of participants using projected fifth quarter earnings. Table 2c summarizes the gain in tax revenues induced by participant spending for various multiplier and income estimation assumptions.

The results presented in these tables indicate that tax revenue gains ranging from $2,372,953 to $4,193,419 result from the economic activity induced by the spending of program participants.

## Table 2a
## Estimated Induced Tax Gains from Increased Economic Activity[a]

***Income annualized based on earnings in latest reported quarter***

| Program | Income | Payroll Tax[1] | Federal Income Tax[2] | State Income Tax[3] | Sales Tax[4] | Total |
|---|---|---|---|---|---|---|
| Dislocated Workers | $5,805,232 | $888,200 | $766,291 | $232,209 | $170,964 | **$2,057,664** |
| Adult | $5,352,680 | $818,960 | $706,554 | $214,107 | $157,636 | **$1,897,257** |
| **Total** | **$11,157,912** | **$1,707,161** | **$1,472,844** | **$446,316** | **$328,601** | **$3,954,922** |

[a] Assuming Economic Multiplier of 2.0
[1] Payroll tax rate 15.30 %
[2] Federal Income Tax Rate 13.20 %
[3] State Income Tax Rate 4.00 %
[4] Sales Tax Rate 7.75 % on 38% of income

## Table 2b
## Estimated Induced Tax Gains from Increased Economic Activity[a]

***Income annualized based on projected earnings in fifth quarter following program exit.***

| Program | Income | Payroll Tax[1] | Federal Income Tax[2] | State Income Tax[3] | Sales Tax[4] | Total |
|---|---|---|---|---|---|---|
| Dislocated Workers | $6,161,936 | $942,776 | $813,376 | $246,477 | $181,469 | **$2,184,098** |
| Adult | $5,668,840 | $867,333 | $748,287 | $226,754 | $166,947 | **$2,009,320** |
| **Total** | **$11,830,776** | **$1,810,109** | **$1,561,662** | **$473,231** | **$348,416** | **$4,193,419** |

[a] Assuming Economic Multiplier of 2.0
[1] Payroll tax rate 15.30 %
[2] Federal Income Tax Rate 13.20 %
[3] State Income Tax Rate 4.00 %
[4] Sales Tax Rate 7.75 % on 38% of income

## Table 2c
## Estimated Induced Tax Gains from Increased Economic Activity Under Different Economic Multiplier Assumptions

| Multiplier | Tax Gain |
|---|---|
| 1.6 | $2,372,953 - $2,516,051 |
| 2.0 | $3,954,922 - $4,193,419 |

## IV. Total Tax Gains

Tables 3a-3d detail the total tax revenue gains from the dislocated worker and adult programs under differing assumptions regarding the income multiplier and the estimate of annual income for participants after completing the program. The data in these tables indicate that the dislocated worker program produces gains in tax revenues ranging from $2,804,623 to $3,850,594. We estimate gains in tax revenues resulted from the adult program as ranging from $2,585,986 to $3,542,458.

### Table 3a
### Estimated Direct and Induced Tax Gains from Placements with Income Multiplier Estimated at 2.0

***Income annualized based on earnings in latest reported quarter***

| Program | Direct Tax Gains | Induced Tax Gains | Total Tax Gains |
|---|---|---|---|
| Dislocated Workers | $1,570,025 | $2,057,664 | **$3,627,689** |
| Adult | $1,447,632 | $1,897,257 | **$3,344,889** |
| **Total** | **$3,017,657** | **$3,954,921** | **$6,972,578** |

### Table 3b
### Estimated Direct and Induced Tax Gains from Placements with Income Multiplier Estimated at 2.0

***Income annualized based on projected earnings in fifth quarter following program exit.***

| Program | Direct Tax Gains | Induced Tax Gains | Total Tax Gains |
|---|---|---|---|
| Dislocated Workers | $1,666,496 | $2,184,098 | **$3,850,594** |
| Adult | $1,533,138 | $2,009,320 | **$3,542,458** |
| **Total** | **$3,199,634** | **$4,193,418** | **$7,393,052** |

## Table 3c
## Estimated Direct and Induced Tax Gains from Placements with Income Multiplier Estimated at 1.6

***Income annualized based on earnings in latest reported quarter***

| Program | Direct Tax Gains | Induced Tax Gains | Total Tax Gains |
|---|---|---|---|
| Dislocated Workers | $1,570,025 | $1,234,598 | **$2,804,623** |
| Adult | $1,447,632 | $1,138,354 | **$2,585,986** |
| **Total** | **$3,017,657** | **$2,372,952** | **$5,390,609** |

## Table 3d
## Estimated Direct and Induced Tax Gains from Placements with Income Multiplier Estimated at 1.6

***Income annualized based on projected earnings in fifth quarter following program exit.***

| Program | Direct Tax Gains | Induced Tax Gains | Total Tax Gains |
|---|---|---|---|
| Dislocated Workers | $1,666,496 | $1,234,598 | **$2,901,094** |
| Adult | $1,533,138 | $1,138,354 | **$2,671,492** |
| **Total** | **$3,199,634** | **$2,372,953** | **$5,572,587** |

## V. Indirect Benefits from Placement Services

In addition to tax revenues, finding employment provides a variety of other economic and non-economic benefits. Fully employed individuals do not collect unemployment insurance and generally do not participate in other government assistance programs. Given the considerable cost of these programs, reduced participation resulting from WIB funded activities provides a significant economic benefit to the government. We do not estimate that benefit in this study because of data availability limitations.

Research provides evidence of a variety of benefits to the community and the individual resulting from full-time employment. Research suggests that unemployment contributes to deterioration in health and well-being (Vinokur, Van Ryn, Gramlich, & Price, 1991). Unemployment has also been linked to severe psychological consequences (Walsh & Jackson, 1995), as well as financial, physical (e.g. hypertension, ulcers), familial (e.g. marital difficulties, child abuse), and psychological (e.g. depression, anxiety) problems (Eby & Buch, 1994). Job loss may be associated with minor psychiatric morbidity, decreased self-esteem and life satisfaction, and cause other negative consequences (Caplan, Vinokur, Price, and Van Ryn, 1989).

Research also reveals that reemployment improves well being (Caplan, Vinokur, Price, and Van Ryn, 1989) and reverses the adverse mental health effects of unemployment (Vinokur, Van Ryn, Gramlich, & Price, 1991). The job search services provided by the OCWIB not only improve the employment situations of their individual customers, but in turn improve the quality of life for the residents of the community they serve.

These benefits are undoubtedly the most important contribution of WIB funded programs. We do not, however, estimate the economic value of these benefits for two reasons: First, data availability limitations make estimates of the economic value of these benefits purely speculative. Second, some of these benefits do not accrue directly to the providers of capital to WIB and the purpose of this study is limited to determining the return on investment to the government.

## VI. Economic Returns from the One-Stop Centers

The One-Stop Centers provided a variety of placement services to 6,300 customers. These services included access to Cal Jobs, internet data bases, faxes, phones and other services, as well as a wide variety of workshops. During the 2004-2005 fiscal year the One-Stop Centers were consolidated from four to two Centers. This period of transition resulted in reduced usage of these facilities and services. The northern One-Stop Center opened in October of 2004 and consequently, there was limited availability to users during the first 3 months of the program year. The southern One-Stop Center opened two months later with limited availability initially.

Despite the period of transition 4,994 different individuals visited the southern and northern One-Stop Centers a total of 34,229 times. An estimated additional 1,304 individuals visited the closed centers 8,923 times. The northern Center averaged 3,085 visits/month with 382 different users in 2004-2005. The southern Center averaged 923 visits/month with 222 different users during this time period. Had these centers been

open the entire year and experienced the same usage rate, an estimated 7,248 different users would have visited these centers a combined 48,096 times.

Even this pro-rated estimate of center usage seriously underestimates the expected value they create. During the first few months after opening, usage of the centers was relatively light. The southern center, for example, received 366 visits in its first month. Visits rose to 1809 in June of 2004 and 2,006 in January of 2006. The northern center received 1,741 visits its first month, rising to 4,009 by June of 2005 and 4,236 by January of 2006.

Table 4 below details the actual usage of the One-Stop Centers in the 2004-2005 program year. Also listed are estimates of usage if the centers were fully operational for the entire year. The first approach assumes that the southern Center was open 5 additional months at the usage rate experienced in June 2005 (the last month of the fiscal year) and that the northern Center was open 3 additional months at the usage rate experienced in June 2005. These assumptions result in forecasted usage of 59,154 visits by 7,717 different users.

This measure, however, underestimates the amount of usage these centers would have experienced if they were fully operational for the entire year. During the first few months of operations, these centers were lightly used. Therefore, a second estimate of usage which assumed both centers were fully operational for the entire year is provided. This estimate assumes 12 months of usage at the rate experienced in January 2006, the last month for which data is available. By January 2006, both centers had been open for over 12 months and should have completed the transition phase. This assumption results in forecasted usage of 74,904 visits by 9,276 different users. This estimate provides the most reasonable indicator of the usage these centers would have experienced in 2004-2005 if it had not been a transition year. These estimates indicate that One-Stop Center usage was cut by over a third because of the transition during the 2004-2005 program year.

## Table 4
## 2004-2005 One-Stop Center Actual Usage and Estimates of Usage if the Centers Were Fully Operational for 12 Months

| | Number of Visits | Number of Unique Visitors | Average Number of Visits Per Unique Visitor |
|---|---|---|---|
| 2004-2005 Usage | 43,152 | 6,300 | 6.85 |
| Estimate usage if Centers Operational for 12 Months[1] | 59,154 | 7,717 | 7.67 |
| Estimate Based on 6/05 Usage Rate[2] | 74,904 | 9,276 | 8.08 |

[1]Estimate of annual visits assuming the southern Center and the northern Center were open 5 more and 3 more months respectively at the June 2006 usage rate.

[2]Estimate of annual visits based on usage in 1/06 multiplied by 12 for each center to estimate usage rate if the centers were open for 12 months and operating at the rate of 1/06.

The typical participant heavily uses the services of the One-Stop Centers. On average, each user visits the Centers about 7 times. In 2004-2005, the northern and southern One-Stop Centers provided internet access to 14,000 visitors, fax facilities to over 7,000 visitors, workshops attended by nearly 1,300 individuals, as well as, access to copiers, telephones, and CalJobs.

Estimating the cost benefit in these services requires determining the specific services used and their contribution to a successful job search. Data limitations, however, severely hamper efforts to estimate the cost benefit of the One-Stop Centers. Precise usage statistics are not available, for example. Visitors indicate one purpose for each visit, although they often avail themselves of multiple services. Thus, usage statistics collected are likely to seriously underestimate the volume of services provided.

More problematic is determining the contribution of these services to a successful job search. It is difficult to obtain data on the employment outcomes customers at the One-Stop Centers obtain. Accurately estimating the benefit of the One-Stop Centers would require surveying a sample of customers to determine exactly what services they used, what results they obtained, and how important Open Stop Center services were to obtaining these outcomes, which is beyond the scope of this particular report.

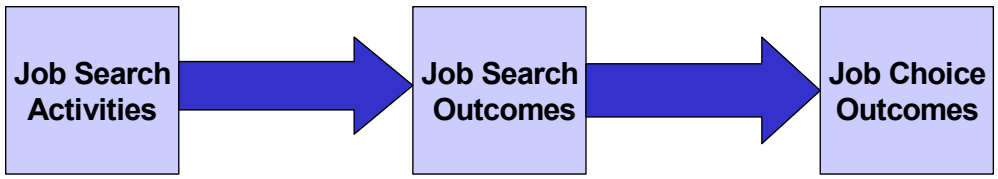
It is important to note that it is not the responsibility of the One-Stop Centers to collect much of the data that would be helpful in carefully valuing One-Stop Center services. In the absence of such data, we have employed an alternative methodology to provide a rough estimate of the Benefit of the One-Stop Centers. First, we developed a Job Placement Model based on an extensive review of the academic literature. That model is depicted in Figure 2. Second we compared the One-Stop Center services provided to those identified as important to a successful job search. Third, we estimated the market price charged by comprehensive private placement services that offer assistance with all aspects of the search process. Fourth, we estimated the percentage of the total search process that One-Stop Center services represent. Finally, we multiplied the percentage of the total search process provided by the One-Stop Centers by the market price charged by comprehensive private placement services.

Tables 5a and 5b below summarizes the results of this analysis. Our analysis suggests that the One-Stop Centers provide between $2,028,600 and $2,148,300 in economic value for the 6,300 customers they served. If the Centers were fully operational for the entire 12 months of the year, the estimated economic return from their operation would have increased almost 50% to between $2,986,872- $3,163,116. Thus, the transition reduced the economic return of the One-Stop Centers by about $1 million.

## Job Placement Model

Figure 2 depicts the job placement process based on an extensive review of the relevant academic research. Models of the job search process share several common elements. Job search activities (e.g. interview skills training) are expected to lead to job search outcomes (e.g. number of interviews obtained). In turn, job search outcomes are expected to lead to job choice outcomes (e.g. quality of offers received).

## Figure 2
## Job Placement Model




- Interest and Skills Inventories
- Review Labor Market Opportunities
- Review Employment Opportunities
- Review Job Listings
- Prepare Resume
- Submit Resumes
- Complete Applications
- Manage Stress
- Interview Training
- Networking Training

- Interviews Obtained
- Offers Received
- Search Duration

- Job Offer Acceptance
- Wage Rate Generated
- Job Satisfaction
- Person-Job Fit
- Retention
- Job Performance

### a. Job Search Activities

Job search activities include gathering information about the job seeker and occupations, resume preparation, interview skills training, and networking. The first activity in job search is for the job seeker to gather self and occupational information. Information about the job searcher includes assessing one's knowledge, skills, abilities, interests, values, and needs. Stumpf and Lockhardt (1987) note that career exploration is critical for career decision making and career development. Their research suggests that the amount of exploration engaged in and information obtained affects career outcomes such as the number of job offers received.

Occupational information may be gathered at both an extensive and an intensive level. Extensive search involves identifying information about general labor market opportunities or what jobs exist. Intensive search involves gathering detailed information about specific employment opportunities.

Once employment opportunities have been identified, the job seeker contacts organizations to apply for available positions. Depending on industry norms, this will involve completing an application form and/or submitting a resume. While Aquilanti and Leroux (1999) note the importance of the resume in job searches, other job search experts

consider this approach to be largely ineffective for obtaining a job. Researchers estimate a 7% success rate with using this job search method.

A large component of job search activities is preparing for interviews. Given the popularity of the interview as a selection device across occupations and industries, job search training programs virtually always include skills training in interview preparation. Aquilanti and Leroux (1999) suggest that interview skills are the key to getting a job, and that networking skills are critical for finding the right job. Informational interviewing may also be a part of interview training. Researchers suggest that the informational interview is an effective method for collecting occupational information and for networking.

Networking is the critical element in job search activity (Brown, 2000). Since the majority of available jobs are not advertised in traditional media (Lewis, 1993), personal contacts are the most important source of information about potential jobs. Networking emerged in one study as the most frequently used method to gain reemployment (Ebby & Buch, 1994).

### b. Job Search Outcomes

Several job search outcomes should result from engaging in the job search behaviors described above. Qunit and Kopelman (1995) and Kanfer and Hulin (1985) report a strong relationship between the number of job search behaviors engaged in and job search outcomes. Job search outcomes are improved when job seekers engage in assertive job seeking behavior (Schmitt, Amel, & Ryan, 1993); are confident of their job search skills (Kanfer & Hulin, 1985); deal with the psychological issues related to job loss (Eby & Buch, 1994); utilize social support (Qunit & Kopelman, 1995); obtain job related information (Steffy, Shaw, & Noe, 1989); and utilize appropriate job sources (Barber, Daly, Giannantonio, & Phillips, 1994).

The primary job search outcomes are receiving invitations to interview and receiving job offers. In addition, how long it took to receive acceptable job offers is critical.

### c. Job Choice Outcomes

The placement process is complete when the individual actually accepts an offer of employment. Measures of job quality are central to a successful choice. Job quality may be assessed by several different measures, including salary, degree of match between academic major and job, job satisfaction, tenure, intention to quit, and turnover (Brasher & Chen, 1999).

## Placement Services Provided by the One-Stop Center

The One-Stop Centers provides many of the job search activities that research suggests are related to job search and choice outcomes.

- Services related to self and occupational exploration include:
  - Receiving career assessment assistance.
  - Utilizing psychological services.
  - Reviewing labor market information.
  - Accessing job boards on the intent.
  - Reviewing Cal Jobs listings.
  - Reviewing Employment Listings.
  - Reviewing Classified Advertisements in the newspaper.

- Services related to preparing for the job search include workshops on:
  - Learning to write a winning resume.
  - Giving a great interview.
  - Managing job search stress.
  - Job searching on the internet.
  - Job Retention.
  - Skills Analysis.

- Additional services include:
  - Workshops on enhancing financial management skills.
  - Arranging for customers to work with a credit counselor.
  - Arranging for customers to work with a rehabilitation counselor.
  - Providing postage and mailing resumes.
  - Forwarding messages from companies to customers.

## Market Price for Private Placement Services

Private placement services vary greatly in the range of services they provide, the customers they serve, and the prices they charge. Services offered by these firms range from free access to job listings, to counseling, training, and leads from proprietary sources. Comprehensive private placement services generate the most value when they have access to networks of employers seeking to fill unpublicized positions. In addition, they provide careful screening of job searchers and employers to ensure a particularly successful job-person fit. Finally, comprehensive services often take responsibility for generating several job offers and a successful placement.

The fees for these services range from hourly charges, to fixed fees, to percentages of annual salaries. Fixed charges for managerial level employees typically range from $2,000 to $6,000. Firms taking responsibility for a successful placement, perform all the functions detailed in Figure 2 and charge 10% of the annual first year salary, on average.

## Percentage of the Placement Process One-Stop Centers Services represent

Many of the activities required for a successful placement are provided by the One-Stop Centers. The services primarily focus on aspects of the job search process. Research indicates that such activities have a significant positive impact on successful placement. Although these services are significant, research suggests that the most important job search activity for placement success involves networking. In addition, the One-Stop Centers offers access for services, but does not take direct responsibility for those in Universal Access (self-service) for assuring the customer is successfully placed or that the eventual placement is a particularly good fit for the customer. It is important to note that the One-Stop Centers is not required to track placement outcomes and would not be expected to do so.

Therefore, we estimate that the universal access services provided by the One-Stop Centers represent approximately 10% of the total placement process. Consequently we estimate the economic value created by the One-Stop Centers as 10% of the market price charged by comprehensive private placement service.

## Value per One-Stop Center Customer

Our estimate of the cost of comprehensive private placement services is 10% of the first year salary of the employee. We estimate the value created by the One-Stop Centers to be 10% of that market price, or 1% of the annual salary of One-Stop Center customers. In the absence of data on the average salary obtained by One-Stop Center customers, we estimate average salary as equal to that obtained by participants in the Dislocated Worker and Adult programs.

We estimated the average annual salary for the individuals listed in the 5/22/2006 Base Wage Report as between $32,155 and $34,094. Based on this analysis, we estimate a return between $2,028,600 and $2,148,300 on the investment in the One-Stop Centers. As mentioned previously and indicated in Tables 5a and 5b, the estimate of economic return to the One-Stop Centers is temporarily depressed by over $1 Million due to the relocations and reorganization in 2004-2005.

## Table 5a
## Economic Return from One-Stop Centers

***Income Annualized based on latest reported quarter following exit.***

| Usage Estimate Method | Number of Participants | Avg. Annual Salary of Participants | Market Price per Participant[1] | Total Economic Return |
|---|---|---|---|---|
| 2004-2005 Usage | 6,300 | $32,155 | $322 | **$2,028,600** |
| Estimate usage if Centers Operational for 12 Months[2] | 7,717 | $32,155 | $322 | **$2,484,874** |
| Estimate Based on 1/06 Usage Rate[3] | 9,276 | $32,155 | $322 | **$2,986,872** |

[1] Market price estimated as 10% of the cost of full service employment agencies, or 1% first year salary.

[2]Estimate of annual visits assuming the southern Center and the northern Center were open 5 more and 3 more months respectively at the June 2006 usage rate.

[3]Estimate of annual visits based on usage in 1/06 multiplied by 12 for each center to estimate usage rate if the centers were open for 12 months and operating at the rate of 1/06.

## Table 5b
## Economic Return from One-Stop Centers

***Income annualized based on projected earnings in fifth quarter following program exit.***

| Usage Estimate Method | Number of Participants | Avg. Annual Salary of Participants | Market Price per Participant[1] | Total Economic Return |
|---|---|---|---|---|
| 2004-2005 Usage | 6,300 | $34,094 | $341 | **$2,148,300** |
| Estimate usage if Centers Operational for 12 Months[2] | 7,717 | $34,094 | $341 | **$2,631,497** |
| Estimate Based on 1/06 Usage Rate[3] | 9,276 | $34,094 | $341 | **$3,163,116** |

[1] Market price estimated as 10% of the cost of full service employment agencies, or 1% first year salary.

[2]Estimate of annual visits assuming the southern Center and the northern Center were open 5 more and 3 more months respectively at the June 2006 usage rate.

[3]Estimate of annual visits based on usage in 1/06 multiplied by 12 for each center to estimate usage rate if the centers were open for 12 months and operating at the rate of 1/06.

Our estimate of the total economic return from One-Stop Center activities is considered highly conservative. The economic return associated with customers taking full advantage of available One-Stop Center services is certainly much higher than the estimates above. In the absence of data on exactly how much the typical customer uses One-Stop Center services, we chose to estimate the minimum value of these services. If more precise data on One-Stop Center usage were available, it is highly probable that a higher estimate of the economic return from the One-Stop Centers could be supported.

A more important step in fully valuing One-Stop Center services would involve surveying One-Stop Center users. Specifically, a survey could determine exactly what services were used, what job outcomes were obtained, and how important One-Stop Center services were to obtaining those outcomes. For example, if a Center user

received a job from a lead obtained at the center, the value of One-Stop Center services would be closer to 10% of the starting salary rather than the $322-$341 estimated here.

## VII. Economic Returns from the Business Service Centers

The Business Service Centers provide a variety of services to businesses including labor shortage assistance, tax credits and reimbursements, outplacement, recruiting, training and development, on-line job postings, assessment and retraining, and economic and labor market data. The economic contributions of the Rapid Response program and recruitment services are estimated below.

### a. Rapid Response

The OCWIB provides Rapid Response funds dedicated to assist dislocated workers to transition to new employment as quickly as possible following either a permanent closure or mass layoff. The goal of this program is to inform impacted employees about comprehensive services available through the One-Stop Centers and its partners. Rapid Response services were provided to 135 employers during the 2004-2005 program year. Approximately 6,778 individuals received information regarding job search and outplacement services during this time period. These services, provided by the One-Stop Centers as rapid response activities, are mandated by the WIA and paid for with federal funds.

Representatives from the Rapid Response Team make on site visits to those companies facing layoffs, downsizing, or closures. They provide information to individuals on receiving unemployment insurance, 401K options, alternatives to COBRA, WIA and EDD funded job search and training services.

A large number of services are provided to assist individuals to quickly transition to new employment. Information provided is normally onsite in a group setting. At the company request, workshops are provided on resume preparation; interview techniques; sources of job information; job searching on the internet; conducting mock interviews and providing financial planning.

For example, when a manufacturer of fine linens relocated to North Carolina, more than 100 employees faced unemployment. The northern region Business Services Center (BSC) provided 8 Rapid Response presentations in Spanish for all shifts. The BSC also arranged an on-site job fair exclusively for employees separating from the company. A total of nine organizations participated offering jobs and support services to the impacted employees.

In examining the Rapid Response program, it should be noted how similar the services provided are to the services provided by outplacement firms. Outplacement firms may, therefore, be used as a comparison point for assessing the services provided by the Rapid Response program. Outplacement is an attempt to reduce the negative impact of termination, to provide training in job search skills, and to reduce the period of unemployment. Outplacement services include helping employees assess their work interests and abilities; identifying job opportunities; assisting in resume writing and

interviewing skills; and providing emotional support during the period of job loss. At its basic level, outplacement involves teaching individuals how to be successful job searchers.

In the private sector, outplacement services are free to the displaced employee. However, the cost of outplacement services to the employer may range from $600 to $6000 per employee. Ten years ago, outplacement was estimated as a $750 million industry and it has grown sharply since. Outplacement services are also distinct from an individual employing the services of a career counselor. Career counselors assist in matching client's interests and skills to various occupations and professions. Working with a career counselor typically involves meeting with the counselor for four to eight sessions at a cost of $60 to $90 per hour.

Outplacement services address numerous elements related to the job loss and search process. Elements related to job loss include providing recognition of and emotional support for the job loss; addressing the stressful aspects of the loss; and determining the individual's financial situation and needs. Elements relating to the job search process include assessing the individual's work knowledge, skills, abilities and interests; job search skills training (including resume preparation, informational interviewing; networking, and interviewing skills); and ongoing emotional support and career counseling.

Research on outplacement programs generally supports the efficacy of such job search and placement activities. For example, Westaby (2004) found that displaced managers and executives participating in outplacement programs with high (versus low) levels of outplacement support were more likely to find jobs and have higher salaries. However, the rigor of programs evaluating outplacement services has been questioned (Wooten, 1996).

Estimating the Cost Benefit in the Rapid Response Program shares the same difficulties associated with determining the Cost Benefit of the One-Stop Centers. Whereas data on the number of companies and employees served is available, limited data is available regarding the precise volume of services Rapid Response provides or the outcomes customers obtain. A survey of a sample of participants in the Rapid Response program is necessary to provide a reasonable estimate of the return to the investment in the Rapid Response program. Without survey or other data, our return estimates are speculative.

In the absence of this data, we estimate the value provided by the Rapid Response program to be at the low end of the market price charged by private outplacement services. This is about $600 per displaced employee. The Rapid Response Program provides essentially all of the benefits of the One-Stop Centers, plus on site service and additional services to employers. Consequently, our estimate of the economic value created per employee to be higher than for customers of the One-Stop Centers. Based on this approach, we estimate the economic return from the Rapid Response program to be $4,066,800.

### b. Recruitment Services

The Business Service Centers also provide no cost recruitment services to the business community. These services include posting positions, access to an application pool, referrals, pre-screening of candidates, job fairs, facilities for interviewing, and access to on-line resumes.

The services provided to Costco illustrate the nature of the Business Service Centers' recruitment services. When Costco opened new stores in Cypress and La Habra, the Business Service Centers scheduled hundreds of interviews and assessed and screened thousands of local residents to help Costco hire several hundred new employees.

Comprehensive recruiting services such as these mirror the services provided by private placement firms. As mentioned in section 6, firms taking responsibility for a successful placement charge 10% of the annual first year salary, on average. Businesses hiring individual through the Business Service Centers receive services similar to comprehensive private placement services. Therefore we value the recruitment services as 10% of the annual first year salary of individuals placed.

In the 2004-2005 program year, the Business Services Centers successfully placed 873 individuals in positions with 158 companies. Positions filled ranged from minimum wage to professional level. No specific information is available at this time on the first year salary of those placed. We estimate the average salary of placed employees as that earned by a full-time employee earning minimum wage ($13,500). Although not all placed employees worked full-time, most also earned more than minimum wage, making our assumptions rather conservative. At a valuation of 10% of first year salary for each placed individual, our estimation method values the recruitment services at $1,350/placement. For the 2004-2005 program year, these services added an estimated $1,192,050 in economic value.

## Table 6
## Economic Return from Business Service Centers

| Service | Number of Employers | Number of Employees | Market Price per Employee | Total Economic Return |
|---|---|---|---|---|
| Rapid Response | 135 | 6,778 | $600 | **$4,066,800** |
| Recruitment | 158 | 873 | $1,350 | **$1,192,050** |
| **Total** | | | | **$5,258,850** |

## VIII. Conclusion: Total Cost Benefit from OCWIB Funded Placement Services

The tables below summarize our estimates of the returns to the providers of capital to WIB from the various programs it funds. The estimates provided in Tables 7a-7b vary based on different estimates of the annual income of participants exiting the adult and dislocated worker programs and the income multiplier.

Rows 7 and 8 in each of these tables provide economic return and payback period estimates. These estimates should be viewed with caution. The estimates assume that the value provided by WIB funded programs equals the direct and induced tax revenue from the estimated annual income of the participants for one year. Although research shows that participants in staff assisted placement and training programs experience long term increases in income relative to non-participants, we do not include any such benefit in our calculations. This tends to understate our estimate.

In addition, since it was not in the scope of this study to have a control group, we do not have information on what participants would have earned had they not participated in the Adult and Dislocated Worker programs. Presumably, many would have found employment without assistance. This tends to overstate our estimate. Ideally, we would have liked to compare lifetime earnings of participants in WIA programs with similar individuals that did not participate in these or other staff assisted placement programs.

With these caveats in mind, we estimate that WIB funded programs provide a return of $12,678,059 and $14,800,202 on an investment of $6,507,435. This equates to a Cost Benefit of 195%-227% and a payback period of 167-187. Had the northern and southern One-Stop Centers been fully operational for the entire program year, the estimate would have risen to 210%-243%.

## Table 7a
## Total Economic Return from One-Stop Centers, Business Service Centers, Dislocated Workers, and Adult Programs

***Income annualized based on earnings in latest reported quarter***

| Program | Economic Return Income Multiplier Estimated at 2.0 | Economic Return Income Multiplier Estimated at 1.6 |
|---|---|---|
| Dislocated Worker | $3,627,689 | $2,804,623 |
| Adult | $3,344,889 | $2,585,986 |
| One-Stop Centers | $2,028,600 | $2,028,600 |
| Business Service Center | $5,258,850 | $5,258,850 |
| **Total** | **$14,260,028** | **$12,678,059** |
| Investment | $ 6,507,435 | $ 6,507,435 |
| **Cost Benefit** | **219%** | **195%** |
| **Payback Period** | **167 Days** | **187 Days** |

## Table 7b
## Total Economic Return from One-Stop Centers, Business Service Centers, Dislocated Workers, and Adult Programs

***Income annualized based on projected earnings in the fifth quarter following program exit.***

| Program | Economic Return Income Multiplier Estimated at 2.0 | Economic Return Income Multiplier Estimated at 1.6 |
|---|---|---|
| Dislocated Worker | $3,850,594 | $2,901,094 |
| Adult | $3,542,458 | $2,671,492 |
| One-Stop Centers | $2,148,300 | $2,148,300 |
| Business Service Centers | $5,258,850 | $5,258,850 |
| **Total** | **$14,800,202** | **$12,979,736** |
| Investment | $ 6,507,435 | $ 6,507,435 |
| **Cost Benefit** | **227%** | **199%** |
| **Payback Period** | **161 Days** | **183 Days** |

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