# THE ECONOMIC CONTRIBUTION OF CLATSOP COMMUNITY COLLEGE

## An Analysis of Investment Effectiveness And Economic Growth

### **Volume 2: Detailed Results**

Entry Level of Education,
Gender and Ethnicity

**State of Oregon** 

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#### INTRODUCTION

The purpose of this volume is to present the results of the economic impact analysis in detail by gender, ethnicity, and entry level of education. It is kept as a separate volume intended for limited distribution only, however, because this effort is not about gender and ethnicity differences per se. The study is about the overall economic impacts generated by community and technical colleges. As such, the Main Report and the short Executive Summary both present the results without reference to gender and ethnicity differences.

We feel, nevertheless, that it is important to present all of the results for the sake of completeness, not just the consolidated ones, so long as the users of the detailed information remain prudent in its use and distribution. The results should not be used, for example, to further any political agendas. Other studies about gender and ethnicity differences address such questions better and in greater detail. Our intent is simply to provide college presidents with pertinent information should specific questions arise.

On the data entry side, gender and ethnicity are important variables that help characterize the student body profile. We collect the profile data and link it to national and state statistical databases which are already broken out by gender and ethnic differences. The student body profile, to a large extent, drives the magnitudes of the results which are presented in detail in this volume and in a consolidated fashion in the Main Report and the Executive Summary.

#### HOW TO INTERPRET THE TABLES

Note that the tabular results presented in this volume reflect the sum totals for *all* of the students in each education category. The more students in each category, the higher the aggregate results for that category will be. For example, if you have 100 students that enter the college with a HS diploma, by the end of the analysis year those students will have moved up at least one level, into the "one year post HS or less" category or higher. The aggregate results for these students appear in the category that corresponds with their education level by the end of the study year (broken down by gender and ethnicity). The literature references for the databases and parameters used to determine the results are listed in the Main Volume, and the major sources are also presented in conjunction with the summary tables in this volume.

#### **DETAILED TABLES**

#### TABLE 1: HIGHER EARNINGS

Statistics indicate that earnings are highly correlated with education. As education milestones are achieved, students move into higher levels of average earnings. The higher earnings (also known as *private benefits*) of the students are summarized in **Table 1** below. Note that these are aggregate figures, reflecting the cumulative achievements of the students, their level of education at the end of the analysis year, and the age, gender and ethnicity profile of the student body. The total in the last column of **Table 1** also appears in **Table 3.1** of Volume 1: Main Report.

Table 1. Higher Annual Earnings Based on Achievements During Analysis Year, Aggregate

	Male		Female			
	W hite	Minority	W hite	Minority	Total	
< HS/GED	\$368,805	\$108,763	\$219,915	\$64,646	\$762,129	
HS/GED equivalent	\$114,625	\$33,798	\$68,375	\$20,096	\$236,894	
One year post HS or less	\$1,551,680	\$137,753	\$1,219,193	\$138,951	\$3,047,576	
Two years post HS or less	\$805,649	\$70,091	\$659,836	\$73,490	\$1,609,065	
> Associate Degree	\$9,196	\$779	\$8,293	\$821	\$19,088	
Total	\$2,849,954	\$351,183	\$2,175,612	\$298,003	\$5,674,752	

Note: This table reflects the higher annual earnings of the students themselves - it does not account for migration out of state. Students who leave the state immediately upon leaving college are accounted for in Table 20.

Sources: U.S. Census Bureau, Housing and Household Economic Statistics Division; U.S. Census Bureau, Income Surveys Branch/HHES Division, "Median for 4-Person Families, by State" (October 2003); U.S. Census Bureau, "Table P-3. Race and Hispanic Origin of People by Mean Income and Sex: 1947 to 2000" (September 2002); U.S. Census Bureau, "Table P-18. Educational Attainment—People 25 Years Old and Over by Mean Income and Sex: 1991 to 2000" (September 2002).

#### Tables 2 – 7: Reduced Medical Costs

In general, statistics show a positive correlation between higher education and improved health habits. The following tables show the calculated reductions in medical costs as a function of adding higher education, linked to the gender and ethnicity profile of the student body. Again, note that these are aggregate figures reflecting the entire student body as a whole (not per individual).

The improved health of students generates savings in three measurable ways: 1) lower absenteeism from work (**Tables 2** and **3**); 2) reduced smoking (**Tables 4** and **5**), and; 3) reduced alcohol abuse (**Tables 6** and **7**). The aggregated data shown in these tables reappear in **Table 3.1** of the Main Report.

Table 2. Number of Days Reduced Absenteeism per Year

	Male		Fer	Female	
	White	Minority	White	Minority	Absenteeism
< HS/GED	54	26	111	37	228
HS/GED equivalent	4	2	9	3	18
One year post HS or less	124	18	325	42	510
Two years post HS or less	50	7	124	16	196
> Associate Degree	0	0	1	0	2
Total	233	54	569	97	953

Note: Results adjusted for out-migration, but not attrition over time. Out-of-state attrition is applied in Table 19.

Sources: Bureau of Labor Statistics, Current Population Survey, "Table 46. Absences from work of employed full-time wage and salary workers by age and sex" [database on-line] Available from http://www.bls.gov/cps (accessed June 20, 2005); U.S. Census Bureau, "Table P-3. Race and Hispanic Origin of People by Mean Income and Sex: 1947 to 2000."

Table 3. Employer Savings from Reduced Absenteeism, \$ per Year

	Male		Female			
	White	Minority	W hite	Minority	Total	
< HS/GED	\$5,626	\$2,131	\$6,634	\$2,071	\$16,462	
HS/GED equivalent	\$555	\$210	\$652	\$204	\$1,621	
One year post HS or less	\$17,758	\$2,034	\$27,256	\$3,314	\$50,362	
Two years post HS or less	\$8,085	\$900	\$12,352	\$1,457	\$22,795	
> Associate Degree	\$89	\$10	\$148	\$16	\$262	
Total	\$32,113	\$5,285	\$47,042	\$7,062	\$91,502	

Sources: Bureau of Labor Statistics and the U.S. Census Bureau; see also Table 2.

Table 4. Fewer Smokers

	Male		Fer	Female		
	White	Minority	W hite	Minority	Total	
< HS/GED	2	1	2	0	5	
HS/GED equivalent	0	0	0	0	0	
One year post HS or less	18	2	15	1	36	
Two years post HS or less	6	1	5	0	12	
> Associate Degree	2	0	1	0	3	
Total	28	4	23	2	57	

Note: Results adjusted for out-migration, but not attrition over time. Out-of-state attrition is applied in Table 19.

Sources: Centers for Disease Control and Prevention, National Center for Health Statistics, "Table 60. Current cigarette smoking by persons 18 years of age and over" in *Health, United States, 2004* (Hyattsville, MD, 2004); National Center for Health Statistics, "Table 61: Age-adjusted prevalence of current cigarette smoking," in *Health, United States, 2004* (Hyattsville, MD, 2004); Questionnaire supplements: hypertension (1974), smoking (1979), alcohol and health practices (1983), health promotion and disease prevention (1985, 1990-91), cancer control and cancer epidemiology (1992), and year 2000 objectives (1993-95). Data starting in 1997 obtained from the family core and sample adult questionnaires.

Table 5. Medical Savings from Reduced Smoking, \$ per Year

	<u> </u>		<u> </u>			
	Annual Costs, Male		Annual Cost	Annual Costs, Female		
	W hite	Minority	W hite	Minority	Total	
< HS/GED	\$5,843	\$2,243	\$5,012	\$868	\$13,967	
HS/GED equivalent	\$383	\$147	\$330	\$58	\$919	
One year post HS or less	\$54,385	\$6,354	\$44,033	\$3,153	\$107,925	
Two years post HS or less	\$18,582	\$2,099	\$15,203	\$1,133	\$37,017	
> Associate Degree	\$4,922	\$548	\$4,389	\$316	\$10,175	
Total	\$84,117	\$11,391	\$68,967	\$5,528	\$170,002	

Source: Centers for Disease Control and Prevention, "Table 2: Annual smoking-attributable economic costs for adults and infants - United States, 1995-1999," in "Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Economic Costs - United States, 1995-1999" (MMWR Weekly 51(4), April 12, 2002): 300-3. See also Table 4.

Table 6. Fewer Alcohol Abusers

	Male		Fer	Female	
	White	Minority	W hite	Minority	Total
< HS/GED	1	0	0	0	1
HS/GED equivalent	0	0	0	0	0
One year post HS or less	6	1	3	0	10
Two years post HS or less	2	0	1	0	4
> Associate Degree	0	0	0	0	0
Total	9	1	5	1	16

Note: Results adjusted for out-migration, but not attrition over time. Out-of-state attrition is applied in Table 19.

Sources: National Institute of Alcohol Abuse and Alcoholism, "Percent reporting alcohol use in the past year by age group and demographic characteristics: NHSDA, 1994-97" (August 1999); National Institute on Drug Abuse and the National Institute of Alcohol and Alcoholism, *The Economic Costs of Alcohol and Drug Abuse in the United States – 1992* (Bethesda, MD: Department of Health and Human Services, National Institute of Health, May 1998); Thomas Nephew and others, eds., *Surveillance Report #55: Apparent Per Capita Alcohol Consumption: National, State and Regional Trends, 1977-98* (Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 2000).

Table 7. Medical Savings from Reduced Alcohol Abuse, \$ per Year

	Annual Costs, Male		Annual Costs, Female			
	White	Minority	White	Minority	Total	
< HS/GED	\$3,816	\$1,462	\$2,819	\$700	\$8,797	
HS/GED equivalent	\$258	\$99	\$185	\$47	\$588	
One year post HS or less	\$39,410	\$4,546	\$24,478	\$2,496	\$70,930	
Two years post HS or less	\$15,352	\$1,698	\$8,329	\$876	\$26,254	
> Associate Degree	\$1,214	\$131	\$644	\$63	\$2,052	
Total	\$60,049	\$7,935	\$36,455	\$4,182	\$108,621	

Source: National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism, *The Economic Costs of Alcohol and Drug Abuse in the United States, 1992* (Bethesda, MD: Department of Health and Human Services, National Institute of Health, May 1998). See also Table 6.

#### Tables 8 – 11: Reduced Incarceration Costs

**Tables 8** through **11** relate the probabilities of incarceration to education levels – incarceration drops on a sliding scale as education levels rise (linked to the gender and ethnicity profile of the student body). The implication is, as people achieve higher education levels, they are statistically less likely to commit crimes. As above, note that results in the tables are aggregated – they are not on an individual basis.

We identify three types of crime-related expenses: 1) the expense of incarceration, including prosecution, imprisonment, and reform (**Tables 8** and **9**); 2) victim costs (**Table 10**), and; 3) productivity gained as a result of time spent working rather than in jail or prison (**Table 11**). The aggregated data shown in these tables are also presented in **Table 3.1** of the Main Report.

Table 8. Fewer Incarcerated, Aggregate for Student Body

	Male		Fer	Female	
	White	Minority	W hite	Minority	Total
< HS/GED	1	0	0	0	2
HS/GED equivalent	0	0	0	0	0
One year post HS or less	6	1	0	0	8
Two years post HS or less	1	0	0	0	2
> Associate Degree	0	0	0	0	0
Total	8	2	0	0	11

Note: Results adjusted for out-migration, but not attrition over time. Out-of-state attrition is applied in Table 19.

Sources: Allen J. Beck and Paige M. Harrison, *Prisoners in 2000* (Washington, D.C.: U.S. Department of Justice, August 2001); National Center for Education Statistics, *Literacy Behind Prison Walls* (Washington, D.C.: U.S. Department of Education, October 1994); National Institute for Literacy, Correctional Educational Facts [home page on-line] (accessed March 2001); Sandra Kerka, "Prison Literacy Programs. ERIC Digest No. 159" [database on-line] (1995); Stephen J. Steurer, Linda Smith, and Alice Tracy, "Three State Recidivism Study" (Lanham, MD: Correctional Education Association, September 2001); Thomas P. Bonczar and Alan J. Beck, *Lifetime Likelihood of Going to State or Federal Prison* (Washington, D.C.: U.S. Department of Justice, March 1997); U.S. Census Bureau, "Table 1. Educational Attainment of the Population 15 Years and Over, by Age, Sex, Race, and Hispanic Origin" in *Educational Attainment in the United States March 2000* (December 2000).

Table 9. Savings from Reduced Incarceration, \$ per Year

	Annual Costs, Male		Annual Costs, Female			
	White	Minority	White	Minority	Total	
< HS/GED	\$7,836	\$3,970	\$95	\$592	\$12,492	
HS/GED equivalent	\$453	\$257	\$5	\$37	\$752	
One year post HS or less	\$48,950	\$10,688	\$552	\$1,745	\$61,935	
Two years post HS or less	\$10,088	\$3,301	\$113	\$477	\$13,980	
> Associate Degree	\$502	\$223	\$6	\$29	\$760	
Total	\$67,829	\$18,439	\$771	\$2,881	\$89,920	

Sources: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics Bulletin, Table 1 in "Justice Expenditures and Employment in the United States, 2001" (May 2004). Paige M. Harrison and Allan J. Beck, "Number of persons held in state or federal prison or in local jails, 1995-2004" [data base on-line] Available from: http://w w w .ojp.usdoj.gov/bjs (Bureau of Justice Statistics, National Prisoner Statistics, April 24, 2005); Timothy Hughes, et al, "State prison admissions 2001: Sentence length by offense and admission type" (Bureau of Justice Statistics, National Corrections Reporting Program 2001, May 7, 2004); Bureau of Justice Statistics, Survey of Inmates in Local Jails, 2002, "Length of sentence and time expected to be served of inmates sentenced to jail, by offense, 2002" (July 5, 2004).

Table 10. Crime Victim Savings, Aggregate for Student Body, \$ per Year

	Annual Costs, Male		Annual Costs, Female			
	White	Minority	W hite	Minority	Total	
< HS/GED	\$2,513	\$1,273	\$30	\$190	\$4,007	
HS/GED equivalent	\$145	\$82	\$2	\$12	\$241	
One year post HS or less	\$15,701	\$3,428	\$177	\$560	\$19,866	
Two years post HS or less	\$3,236	\$1,059	\$36	\$153	\$4,484	
> Associate Degree	\$161	\$72	\$2	\$9	\$244	
Total	\$21,756	\$5,914	\$247	\$924	\$28,842	

Sources: D. A. Anderson, "The Aggregate Burden of Crime" (*Journal of Law and Economics* XLII 2, October 1999): 611-642; Ted R. Miller, Mark A. Cohen, and Brian Wiersema, *Victim Costs and Consequences: A New Look* (Washington, D.C.: U.S. Department of Justice, National Institute of Justice, January 1996); see also Table 8.

Table 11. Productivity Gained (Fewer Incarcerated), \$ per Year

	Annual Costs, Male		Annual Costs, Female			
	White	Minority	White	Minority	Total	
< HS/GED	\$3,191	\$1,259	\$22	\$131	\$4,603	
HS/GED equivalent	\$238	\$105	\$2	\$11	\$354	
One year post HS or less	\$27,465	\$4,669	\$181	\$540	\$32,856	
Two years post HS or less	\$6,451	\$1,643	\$44	\$176	\$8,314	
> Associate Degree	\$367	\$127	\$3	\$13	\$510	
Total	\$37,711	\$7,804	\$253	\$871	\$46,638	

Sources: Correctional Education Association, the National Center for Education Statistics, the U.S. Census Bureau, and the U.S. Department of Justice; see also Table 8.

#### TABLES 12 – 15: REDUCED WELFARE AND UNEMPLOYMENT

Higher education is statistically associated with lower welfare and unemployment. The higher the education level, the less likely it is for an individual to apply for welfare and/or unemployment assistance (as above, these data are linked to the gender and ethnicity profile of the student body). Results reflect the student body as a whole and are dependent on the cumulative achievements of the students and their education level at the end of the analysis year.

Social savings received from reduced welfare are shown in **Tables 12** and **13**, and savings received from reduced unemployment are shown in **Tables 14** and **15**. Aggregated numbers also appear in **Table 3.1** of the Main Report.

Table 12. Fewer People on Welfare

		ala		mala	
	IVI	ale	rei	male	
	W hite	Minority	W hite	Minority	Total
< HS/GED	1	1	2	2	6
HS/GED equivalent	0	0	0	0	0
One year post HS or less	9	2	14	4	30
Two years post HS or less	2	1	3	1	7
> Associate Degree	0	0	0	0	0
Total	13	4	20	6	43

Note: Results adjusted for out-migration, but not attrition over time. Out-of-state attrition is applied in Table 19.

Sources: Committee on Ways and Means, 2000 Ways and Means Green Book, 17th ed. (Washington D.C.: U.S. House of Representatives, October 2000); Health Care Financing Administration, A Profile of Medicaid: Chartbook 2000 (Washington, D.C.: U.S. Department of Health and Human Services, September 2000); Robert Rector, Means-Tested Welfare Spending: Past and Future Growth [database on-line] (Heritage Foundation, March 2001); Social Security Bulletin, Annual Statistical Supplement, 2000 [database on-line] (December 2002); Temporary Assistance for Needy Families (TANF) Program, "Table 12: Percent distribution of TANF adult recipients by race" and "Table 17: Percent distribution of TANF adult recipients by educational level" in Characterisitics and Financial Circumstances of TANF Recipients (Washington D.C.: U.S. Department of Health and Human Services, May 1999); U.S. Census Bureau, Population Division, "Table ST-EST2002-01 - State Population Estimates" [database on-line] (December 2002).

Table 13. Community Welfare Savings, \$ per Year

	Annual Costs, Male		Annual Cost	s, Female					
	White	Minority	W hite	Minority	Total				
< HS/GED	\$2,023	\$1,725	\$3,227	\$2,267	\$9,242				
HS/GED equivalent	\$120	\$103	\$192	\$135	\$550				
One year post HS or less	\$13,793	\$3,594	\$20,575	\$5,672	\$43,634				
Two years post HS or less	\$3,177	\$790	\$4,732	\$1,251	\$9,950				
> Associate Degree	\$172	\$42	\$275	\$65	\$554				
Total	\$19,285	\$6,253	\$29,000	\$9,391	\$63,929				

Sources: Social Security Online, Annual Statistical Supplement, 2004, Table 9.G2: "Average monthly number of families and recipients of Temporary Assistance for Needy Families and total amount of assistance, by state or other area, 2003" [data base on-line] Available from: http://www.ssa.gov/policy/docs/statcomps/supplement/2004/ (accessed June 1, 2005); U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, 2003 Data Compendium [data base on-line] Available from: http://www.cms.hhs.gov/researchers/pubs/datacompendium/current/ (accessed June 1, 2005); U.S. Department of Health and Human Services, Indicators of Welfare Dependence: Annual Report to Congress, 2003, Appendix A [data base on-line] Available from: http://aspe.hhs.gov/hsp/indicators03/index.htm (accessed June 1, 2005).

Table 14. Fewer People on Unemployment

	M	ale	Fer	Female		
	White	Minority	W hite	Minority	Total	
< HS/GED	0	0	1	0	1	
HS/GED equivalent	0	0	0	0	0	
One year post HS or less	3	1	4	1	10	
Two years post HS or less	1	0	1	0	3	
> Associate Degree	0	0	0	0	1	
Total	5	1	7	1	15	

Note: Results adjusted for out-migration, but not attrition over time. Out-of-state attrition is applied in Table 19.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey.

Table 15. Unemployment Savings, \$ per Year

	Annual Cos	sts, Male	Annual Cost		
	W hite	Minority	W hite	Minority	Total
< HS/GED	\$459	\$360	\$623	\$319	\$1,762
HS/GED equivalent	\$30	\$23	\$41	\$21	\$115
One year post HS or less	\$4,321	\$997	\$5,361	\$1,064	\$11,744
Two years post HS or less	\$1,439	\$243	\$1,595	\$277	\$3,554
> Associate Degree	\$387	\$62	\$453	\$69	\$971
Total	\$6,637	\$1,686	\$8,073	\$1,750	\$18,146

Source: U.S. Department of Labor, Employment and Training Administration, Unemployment Insurance Data Summary [data base on-line] Available from: http://w orkforcesecurity.doleta.gov/unemploy/content/data.asp (accessed June 1, 2005).

#### TABLES 16 - 18: SUMMARY TABLES

The summary tables simply show the sum totals of the values presented in **Tables 1** through **15** (see **Table 16**), as well as the annualized values per CHE (see **Table 17**) and per student (**Table 18**). The numbers in the last column of **Table 16** also appear in **Table 3.1** of the Main Report. The weighted averages in **Tables 17** are reproduced in **Table 3.2**.

Table 16. Summary of Annual Impacts, \$ per Year

		P			
Mal	Male		Female		
W hite	Minority	W hite	Minority	Total	
\$2,849,954	\$351,183	\$2,175,612	\$298,003	\$5,674,752	
\$32,113	\$5,285	\$47,042	\$7,062	\$91,502	
\$144,166	\$19,326	\$105,422	\$9,710	\$278,623	
\$67,829	\$18,439	\$771	\$2,881	\$89,920	
\$21,756	\$5,914	\$247	\$924	\$28,842	
\$37,711	\$7,804	\$253	\$871	\$46,638	
\$19,285	\$6,253	\$29,000	\$9,391	\$63,929	
\$6,637	\$1,686	\$8,073	\$1,750	\$18,146	
\$3,179,451	\$415,891	\$2,366,420	\$330,591	\$6,292,353	
	White \$2,849,954 \$32,113 \$144,166 \$67,829 \$21,756 \$37,711 \$19,285 \$6,637	White         Minority           \$2,849,954         \$351,183           \$32,113         \$5,285           \$144,166         \$19,326           \$67,829         \$18,439           \$21,756         \$5,914           \$37,711         \$7,804           \$19,285         \$6,253           \$6,637         \$1,686	White         Minority         White           \$2,849,954         \$351,183         \$2,175,612           \$32,113         \$5,285         \$47,042           \$144,166         \$19,326         \$105,422           \$67,829         \$18,439         \$771           \$21,756         \$5,914         \$247           \$37,711         \$7,804         \$253           \$19,285         \$6,253         \$29,000           \$6,637         \$1,686         \$8,073	White         Minority         White         Minority           \$2,849,954         \$351,183         \$2,175,612         \$298,003           \$32,113         \$5,285         \$47,042         \$7,062           \$144,166         \$19,326         \$105,422         \$9,710           \$67,829         \$18,439         \$771         \$2,881           \$21,756         \$5,914         \$247         \$924           \$37,711         \$7,804         \$253         \$871           \$19,285         \$6,253         \$29,000         \$9,391           \$6,637         \$1,686         \$8,073         \$1,750	

Source: Results for Table 16 computed internally by the model based on data obtained from Tables 1-15.

Table 17. Annual Impacts per Credit Hour Equivalent, \$ per Year

	Mal	е	Fema	Female			
	W hite	Minority	W hite	Minority	Average		
Higher earnings	\$ 85	\$ 81	\$ 64	\$ 66	\$ 75		
Absenteeism Savings	\$ 1	\$ 1	\$ 1	\$ 2	\$ 1		
Medical Cost Savings	\$ 4	\$ 4	\$ 3	\$ 2	\$ 4		
Incarceration Savings	\$ 2	\$ 4	\$ 0	\$ 1	\$ 1		
Crime Victim Savings	\$ 1	\$ 1	\$ 0	\$ 0	\$ 0		
Add Prod. (fewer incarc.)	\$ 1	\$ 2	\$ 0	\$ 0	\$ 1		
Welfare Savings	\$ 1	\$ 1	\$ 1	\$ 2	\$ 1		
Unemployment Savings	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0		
Total	\$ 95	\$ 95	\$ 70	\$ 73	\$ 83		

Source: Results for Table 17 computed internally by the model based on data obtained from CCC and from Table 16.

Table 18. Annual Impacts per Student, \$ per Year

	Mal	е	Fema	Female		
	W hite	Minority	White	Minority	Average	
Higher earnings	\$ 1,009	\$ 954	\$ 762	\$ 783	\$ 883	
Absenteeism Savings	\$ 11	\$ 14	\$ 16	\$ 19	\$ 14	
Medical Cost Savings	\$ 51	\$ 53	\$ 37	\$ 26	\$ 43	
Incarceration Savings	\$ 24	\$ 50	\$ 0	\$ 8	\$ 14	
Crime Victim Savings	\$ 8	\$ 16	\$ 0	\$ 2	\$ 4	
Add Prod. (fewer incarc.)	\$ 13	\$ 21	\$ 0	\$ 2	\$ 7	
Welfare Savings	\$ 7	\$ 17	\$ 10	\$ 25	\$ 10	
Unemployment Savings	\$ 2	\$ 5	\$ 3	\$ 5	\$ 3	
Total	\$ 1,126	\$ 1,130	\$ 829	\$ 868	\$ 979	

Source: Results for Table 18 computed internally by the model based on data obtained from CCC and from Table 16.

#### TABLES 19 – 20: TAXPAYER PERSPECTIVES

**Tables 19** and **20** in this report are particularly important. They provide the data needed for computing the investment analysis results in **Table 3.6** in the Main Report — the broad and narrow taxpayer perspectives. In **Table 19**, every other column (the higher taxes and the avoided cost columns) provides the data needed for the narrow taxpayer perspective. The remaining columns provide the data needed for the broad taxpayer perspective. **Table 20** provides the detailed calculations on the labor and non-labor income added to the regional economy as a result of higher student earnings. The total income growth figures feed into the first column of **Table 19**.

VOLUME 2: DETAILED RESULTS Detailed Tables

Table 19. Cumulative Impact Over Time (\$ Thousands), Details for Both Taxpayer Perspectives

	INCOME HEALTH					ver rime	(\$ INOU	\$ Thousands), Details for Both Taxpayer Perspecti CRIME				WELFARE/UNEMPLOYMENT				
	Increase	Added	Poducod	Avoided	Medical	Avoided	Incarc-	Avoided	CK	Avoided	Product.	Avoidad	Reduced		Reduced	
Year	in Income	Taxes	Absent.	Cost	Saving	Cost	eration	Cost	Victim s	Cost	Gaine d	Cost	Welfare	Cost	Unempl.	Cost
0	\$4,394	\$635	\$92	\$14	\$279	\$17	\$90	\$72	\$29	\$0	\$47	\$7	\$64	\$10	\$18	\$0
1	\$4,873	\$704	\$92	\$14	\$279	\$17	\$89 \$89	\$72	\$29	\$0 \$0	\$47 \$47	\$7	\$64	\$10	\$18	\$0 \$0
2	\$6,142	\$70 <del>4</del> \$887	\$91	\$14	\$277	\$17 \$17	\$89	\$72	\$29	\$0 \$0	\$47 \$46	\$7	\$63	\$10	\$18	\$0 \$0
3		\$960	\$91 \$91	\$14 \$14	\$276	\$17 \$16	\$89	\$71	\$29	\$0 \$0	\$46 \$46	\$7 \$7	\$63 \$63	\$10 \$10	\$18	
	\$6,646			1	I '			1 '			I					\$0 \$0
4	\$7,164	\$1,035	\$91	\$14	\$273	\$16	\$88	\$70	\$28	\$0	\$46	\$7	\$63	\$10	\$18	\$0
5	\$7,694	\$1,111	\$90	\$14	\$271	\$16	\$88	\$70	\$28	\$0	\$46	\$7	\$62	\$10	\$18	\$0
6	\$8,233	\$1,189	\$90	\$14	\$270	\$16	\$87	\$70	\$28	\$0	\$46	\$7	\$62	\$10 010	\$17	\$0
7	\$8,780	\$1,268	\$90	\$14	\$269	\$16	\$87	\$69	\$28	\$0	\$46	\$7	\$62	\$10	\$17	\$0
8	\$9,331	\$1,348	\$90	\$14	\$267	\$16	\$86	\$69	\$28	\$0	\$46	\$7	\$61	\$10	\$17	\$0
9	\$9,884	\$1,427	\$90	\$14	\$266	\$16	\$86	\$69	\$28	\$0	\$46	\$7	\$61	\$10	\$17	\$0
10	\$10,434	\$1,507	\$90	\$14	\$264	\$16	\$85	\$68	\$27	\$0	\$46	\$7	\$61	\$10	\$17	\$0
11	\$10,979	\$1,586	\$89	\$14	\$263	\$16	\$85	\$68	\$27	\$0	\$46	\$7	\$60	\$10	\$17	\$0
12	\$11,516	\$1,663	\$89	\$14	\$262	\$16	\$84	\$68	\$27	\$0	\$45	\$7	\$60	\$10	\$17	\$0
13	\$12,041	\$1,739	\$89	\$14	\$260	\$16	\$84	\$67	\$27	\$0	\$45	\$7	\$60	\$10	\$17	\$0
14	\$12,550	\$1,813	\$89	\$14	\$259	\$16	\$84	\$67	\$27	\$0	\$45	\$7	\$59	\$10	\$16	\$0
15	\$13,041	\$1,883	\$89	\$14	\$258	\$15	\$83	\$67	\$27	\$0	\$45	\$7	\$59	\$9	\$16	\$0
16	\$13,509	\$1,951	\$88	\$14	\$256	\$15	\$83	\$66	\$27	\$0	\$45	\$7	\$59	\$9	\$16	\$0
17	\$13,952	\$2,015	\$88	\$14	\$255	\$15	\$82	\$66	\$26	\$0	\$45	\$6	\$59	\$9	\$16	\$0
18	\$14,367	\$2,075	\$88	\$14	\$254	\$15	\$82	\$66	\$26	\$0	\$45	\$6	\$58	\$9	\$16	\$0
19	\$14,750	\$2,130	\$88	\$14	\$252	\$15	\$81	\$65	\$26	\$0	\$45	\$6	\$58	\$9	\$16	\$0
20	\$15,099	\$2,181	\$88	\$14	\$251	\$15	\$81	\$65	\$26	\$0	\$45	\$6	\$58	\$9	\$16	\$0
21	\$15,412	\$2,226	\$87	\$14	\$250	\$15	\$81	\$64	\$26	\$0	\$45	\$6	\$57	\$9	\$16	\$0
22	\$15,685	\$2,265	\$87	\$14	\$248	\$15	\$80	\$64	\$26	\$0	\$44	\$6	\$57	\$9	\$15	\$0
23	\$15,918	\$2,299	\$87	\$13	\$247	\$15	\$80	\$64	\$26	\$0	\$44	\$6	\$57	\$9	\$15	\$0
24	\$16,108	\$2,326	\$87	\$13	\$246	\$15	\$79	\$63	\$25	\$0	\$44	\$6	\$56	\$9	\$15	\$0
25	\$16,254	\$2,347	\$87	\$13	\$245	\$15	\$79	\$63	\$25	\$0	\$44	\$6	\$56	\$9	\$15	\$0
26	\$16,355	\$2,362	\$86	\$13	\$243	\$15	\$79	\$63	\$25	\$0	\$44	\$6	\$56	\$9	\$15	\$0
27	\$16,412	\$2,370	\$86	\$13	\$242	\$15	\$78	\$63	\$25	\$0	\$44	\$6	\$56	\$9	\$15	\$0
28	\$16,422	\$2,372	\$86	\$13	\$241	\$14	\$78	\$62	\$25	\$0	\$44	\$6	\$55	\$9	\$15	\$0
29	\$16,387	\$2,367	\$86	\$13	\$240	\$14	\$77	\$62	\$25	\$0	\$44	\$6	\$55	\$9	\$15	\$0
30	\$16,308	\$2,355	\$86	\$13	\$238	\$14	\$77	\$62	\$25	\$0	\$44	\$6	\$55	\$9	\$15	\$0
31	\$16,184	\$2,337	\$85	\$13	\$237	\$14	\$77	\$61	\$25	\$0	\$44	\$6	\$54	\$9	\$15	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0	\$0	\$0 \$0	\$0	\$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0	\$0
0	\$0	\$0 \$0	\$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0	\$0 \$0	\$0 \$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0
0	\$0 \$0	\$0 \$0	\$0	\$0	\$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0	\$0
0	\$0	\$0 \$0	\$0	\$0	\$0	\$0	\$0 \$0	\$0	\$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0 \$0	\$0	\$0
PV	\$202,877	\$29,300	\$1,656	\$256	\$4,865	\$292	\$1,570	\$1,256	\$504	\$0	\$844	\$122	\$1,116	\$179	\$309	\$0
Net Alt Ed*	(\$37,590)	(\$5,429)	(\$307)	(\$48)	(\$901)	(\$54)	(\$291)	(\$233)	(\$93)	\$0 \$0	(\$156)	(\$23)	(\$207)	(\$33)	(\$57)	\$0
Net Shutdown*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PV Net Bens	\$165,287	\$23,871	\$1,349	\$209	\$3,963	\$238	\$1,279	\$1,023	\$410	\$0 \$0	\$688	\$99	\$909	\$146	\$252	\$0 \$0
*Note: These redu																

<sup>\*</sup>Note: These reduction factors refer to the alternative education variable ("Net Alt. Ed.") and the shutdown point ("Shutdown"). See Appendices 2 and 3 in Volume 1: Main Report for more details.

Sources: Computed from data supplied by the US Department of Commerce, Regional Economic Information System (CA and SA series), and by CCC.

Table 20. Income Calculations, Taxpayer Perspectives (\$ Thousands)

		ZU. IIICUITIE C				ectives (\$ Thousands)			
	Labor		Indirect	Non-Labor	TOTAL	%	NET		
	Income	Net of	Labor	Income	Income	Reduction	Income		
Year	Growth*	Attrition	Income	Growth	Growth	(see note)	Growth		
0	\$2,806	\$2,385	\$559	\$1,450	\$4,394	19%	\$3,580		
1	\$3,117	\$2,645	\$620	\$1,608	\$4,873	19%	\$3,970		
2	\$3,936	\$3,334	\$781	\$2,027	\$6,142	19%	\$5,004		
3	\$4,266	\$3,608	\$845	\$2,193	\$6,646	19%	\$5,415		
4	\$4,606	\$3,889	\$911	\$2,364	\$7,164	19%	\$5,836		
5	\$4,956	\$4,176	\$978	\$2,539	\$7,694	19%	\$6,268		
6	\$5,312	\$4,469	\$1,047	\$2,717	\$8,233	19%	\$6,708		
7	\$5,675	\$4,766	\$1,116	\$2,898	\$8,780	19%	\$7,153		
8	\$6,041	\$5,065	\$1,187	\$3,079	\$9,331	19%	\$7,602		
9	\$6,410	\$5,365	\$1,257	\$3,262	\$9,884	19%	\$8,052		
10	\$6,778	\$5,664	\$1,327	\$3,443	\$10,434	19%	\$8,501		
11	\$7,145	\$5,960	\$1,396	\$3,623	\$10,979	19%	\$8,945		
12	\$7,507	\$6,251	\$1,464	\$3,800	\$11,516	19%	\$9,382		
13	\$7,862	\$6,536	\$1,531	\$3,974	\$12,041	19%	\$9,810		
14	\$8,209	\$6,813	\$1,596	\$4,142	\$12,550	19%	\$10,225		
15	\$8,544	\$7,079	\$1,658	\$4,304	\$13,041	19%	\$10,624		
16	\$8,867	\$7,333	\$1,718	\$4,458	\$13,509	19%	\$11,006		
17	\$9,173	\$7,574	\$1,774	\$4,604	\$13,952	19%	\$11,367		
18	\$9,462	\$7,799	\$1,827	\$4,741	\$14,367	19%	\$11,705		
19	\$9,731	\$8,007	\$1,876	\$4,868	\$14,750	19%	\$12,017		
20	\$9,978	\$8,196	\$1,920	\$4,983	\$15,099	19%	\$12,302		
21	\$10,202	\$8,366	\$1,960	\$5,086	\$15,412	19%	\$12,556		
22	\$10,401	\$8,514	\$1,995	\$5,176	\$15,685	19%	\$12,779		
23	\$10,573	\$8,641	\$2,024	\$5,253	\$15,918	19%	\$12,968		
24	\$10,718	\$8,744	\$2,048	\$5,316	\$16,108	19%	\$13,123		
25	\$10,833	\$8,823	\$2,067	\$5,364	\$16,254	19%	\$13,242		
26	\$10,920	\$8,878	\$2,080	\$5,398	\$16,355	19%	\$13,325		
27	\$10,976	\$8,909	\$2,087	\$5,416	\$16,412	19%	\$13,371		
28	\$11,002	\$8,914	\$2,088	\$5,420	\$16,422	19%	\$13,379		
29	\$10,997	\$8,895	\$2,084	\$5,408	\$16,387	19%	\$13,351		
30	\$10,962	\$8,852	\$2,074	\$5,382	\$16,308	19%	\$13,286		
31	\$10,898	\$8,785	\$2,058	\$5,341	\$16,184	19%	\$13,185		
0	\$0	\$0	\$0	\$0	\$0	0%	\$0		
0	\$0	\$0	\$0	\$0	\$0	0%	\$0		
0	\$0	\$0	\$0	\$0	\$0	0%	\$0		
0	\$0	\$0	\$0	\$0	\$0	0%	\$0		
0	\$0	\$0	\$0	\$0	\$0	0%	\$0		
0	\$0	\$0	\$0	\$0	\$0	0%	\$0		
0	\$0	\$0	\$0	\$0	\$0	0%	\$0		

<sup>\*</sup> Note: This column shows the annual higher earnings achieved by the student body as a result of their college education.

Sources: Computed from data supplied by the US Department of Commerce, Regional Economic Information System (CA and SA series), and by CCC.

<sup>\*\*</sup> Note: Reduction factors include the alternative education variable and the shutdown variable used to estimate the level of education possible absent state and local government support. See Appendices 2 and 3 in Volume 1: Main Report for more information.