

IS COLORADO'S UI FINANCING STRUCTURE STILL ADEQUATE?

Michael Rose, Chief UI Research, CDLE
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The deep and protracted downturn in the Colorado economy that became evident in 2001 has had severe repercussions for the Colorado Unemployment Insurance trust fund. Fund reserves, which are used to pay benefits to unemployed Coloradans, have evaporated rapidly as job layoffs, plant closures and relocations, and corporate bankruptcies became prominent features of the Colorado economic landscape. The State's unemployment rate, which had reached historic lows of 2.6 percent in late 2000 and early 2001, more than doubled by 2002. Consequently, the fund balance, which had topped \$800 million as recently as mid-2001, has fallen precipitously and now stands at about \$188.7 million as of October 31, 2003.¹

Unemployment insurance payments are generally dependent upon the size of the covered workforce, labor market conditions, and wage levels. The low jobless rates and powerful employment gains that held throughout the 1990's allowed the trust fund to re-accumulate reserves that had been drawn down in the previous decade. However, the same favorable economic environment characterized by vigorous job growth and powerful wage advances has caused the potential liability of the UI system to climb rapidly. With few exceptions, the tax structure of Colorado's unemployment insurance system has not changed since 1991 when HB 91-1118 both established the solvency tax surcharge and widened the intervals of the tax rate schedules.² As a result, the potential liability of the system has mounted at the same time that its relative revenue generating ability has been eroding. Accordingly, some of the measures used to evaluate the fund's health now show important signs of deterioration.

Current fund forecasts indicate that even with a moderate economic upswing beginning in 2004, the UI trust fund may enter brief periods of insolvency in both 2004 and 2005. Although such an event might require short-term federal borrowing to allow uninterrupted payment of benefits, it is anticipated that revenues from the solvency surcharge will be large enough to permit the fund to gradually rebuild reserves and regain its financial footing. Even by year-end 2008, however, fund reserves may fall short of the level considered adequate for maintaining long-term solvency, a situation that may jeopardize the forward financing nature of the system.

The purpose of this paper is to explore the significance of the growing gap between the UI system's potential liabilities and its revenue capacity. In so doing, we examine the following questions:

¹ The trust fund received an infusion of \$142.7 million in federal Reed Act monies in April 2002. Without this disbursement, the September 2003 fund balance would be roughly \$73.5 million (ignoring the revenue effect of having moved to a different tax rate schedule in the tax table for 2003). At \$73.4 million, the fund would almost certainly be in deficit by year-end 2003 or sometime during the first quarter of 2004.

² The impact of TABOR upon the system's structure has been problematic. A 1993 opinion issued by the State Attorney General's Office states that voter approval is required for any changes to the tax structure itself, including modifications to tax rate schedules, tax computation methods, or the taxable wage base.

- How is fund adequacy measured? Do these measures show a meaningful change in the UI system's taxing structure relative to potential liability since the late 1980's?
- Has the level of fund reserves needed to achieve long-term solvency grown significantly over the past fifteen years?
- What course will the fund likely follow over the next several years? Is the State UI system moving gradually toward an implicit deficit-financing model?
- What will happen to average employer tax rates over the next five years?

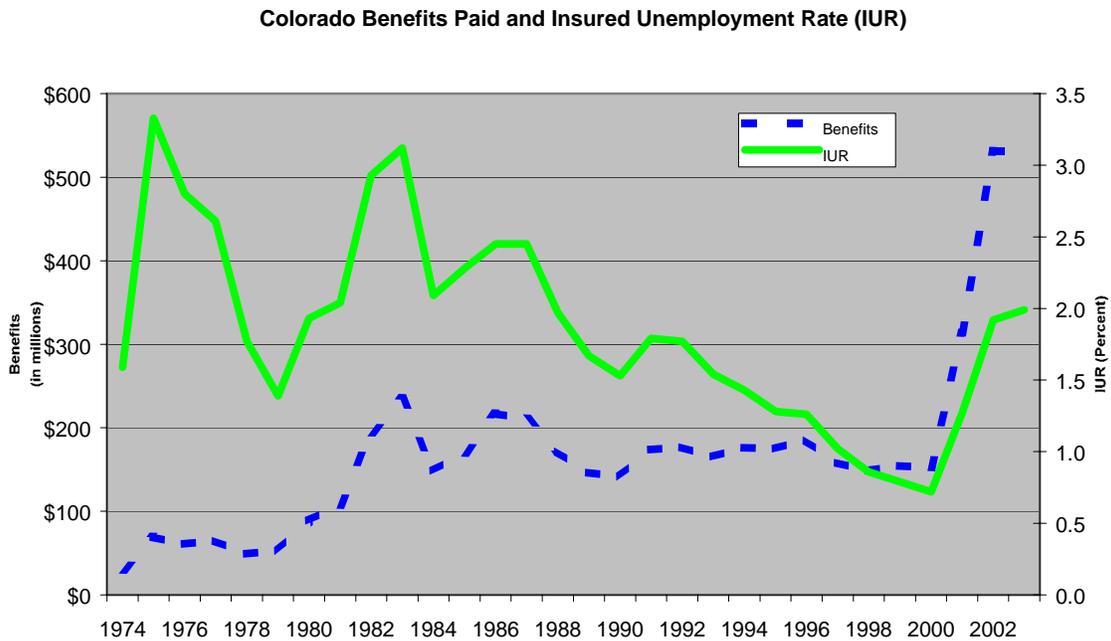
Current and Recent Status of the Fund. The UI trust fund balance as of June 30, 2003 was \$298.7 million. This represents a reduction of \$333.7 million from June 30, 2002 when the balance stood at \$632.4 million. The decline in the fund balance is not surprising given the forward financing aspect of the UI system and its counter-cyclical nature. During times of vigorous economic growth, such as that seen in Colorado from 1992-1999, more money is paid into the system than flows out in benefits thereby expanding the fund's assets. The opposite occurs in periods of economic contraction; slow or negative job growth leads to a drop in UI revenues while higher unemployment rates mean more is paid out in benefits. The fund thus accumulates reserves during periods of economic prosperity in order to have the means available with which to pay benefits when economic conditions deteriorate.

During calendar year 2002, payments to eligible Colorado claimants reached a record \$531.4 million. In contrast, payouts had ranged between \$148.6 million and \$158.2 million from 1997 to 2000. Employer contributions in 2002 totaled \$148.0 million as several years of low benefit charging in conjunction with a fund balance in excess of \$450 million (the lowest schedule in the current tax table) pushed many employers toward very low tax rates. The fund also accumulated interest earnings of \$38.6 million during the year.

Total benefit payouts in 2003 are expected to change little from the prior year. Meanwhile, employer contributions are forecast to rise by \$42.3 million to \$190.3 million as higher benefit charging shifted more businesses toward higher tax rates in 2003. However, overall revenues are expected to grow by only \$23.2 million as interest earnings fall to \$19.5 million due to shrinking fund balances. By year-end 2003, the fund balance is forecast to be \$135.9 million.

Should payouts reach the \$531.0 million anticipated in 2003, the fund will have paid nearly \$1.1 billion in benefits over the combined two-year period, an amount much greater than any over a comparable period in the previous thirty years. Like benefit payments, the insured unemployment rate has roughly tripled from the cycle trough reached in 2000. The insured rate, which provides a measure of relative fund liability, is simply the ratio of weeks claimed to covered employment. It is important to note that while the current insured rate is considerably lower than that which held throughout most of the 1980's, the tremendous growth in

both the State's workforce and wage structure during the recent boom forced overall compensation levels to balloon.³



The threefold increase in claims payments between 2000 and 2002 was not unprecedented in fund history. The stagflation of the late 1970's along with the deep recession that followed caused annual Colorado benefit payments to more than quadruple between 1979 and 1983. Like many other states, Colorado's UI trust fund became insolvent in 1982 after which solvency was not consistently regained until 1985.

Tax Structure Adequacy. A basic concept of unemployment insurance financing is that expected income should equal expected expenditures over the long-term. This implies that the tax structure should be designed in such a way that the trust fund develops neither persistently large positive nor negative balances for long periods. However, because no objective insurable standard for potential benefit liability exists it is not possible to develop measures that definitively determine whether the system will have a tendency toward either under- or over financing.⁴ Still, a number of actuarial and statistical measures used together can aid in evaluating the financing structure of the system.

³ While a two percent IUR in 2003 corresponded to about \$530 million in claimant compensation, the same rate in 1988 only resulted in about \$170 million in payments. The increase is due to growth in the number of covered workforce as well as higher average weekly benefit payments.

⁴ The determination of potential liability over the long-term will stem from forecasts of the duration, frequency and severity of economic downturns.

The expected benefit cost rate indicates the average tax rate on total wages necessary to cover 12 months of benefit payments. The rate is calculated by summing the total amount of UI benefits paid to eligible Colorado claimants over the past ten years and dividing by total wages paid to private sector workers covered by unemployment insurance over the same time. For the period 1993-2002 the benefit cost rate was 0.42 percent. This value is obviously dependent upon the State's most recent ten-year economic performance.⁵ For example, from 1980-1989 the benefit cost rate was 0.88 percent or twice as great as that prevailing since 1990. It is reasonable to consider the long-term benefit cost rate as one that incorporates both slow and fast growth phases of Colorado's economy. The period 1980-1999, which satisfies this condition, has a corresponding benefit cost rate of 0.56 percent so that an average employer tax rate equal to this amount would have just covered total benefit payments over that twenty-year period. In fact, the observed tax rate on total wages over the period equaled 0.58 percent.

The maximum income rate represents the largest amount of tax revenue that can be generated from the tax table as a percentage of total covered wages. As of June 30, 2003, we estimate that \$483.2 million in employer contributions can be generated from the deficit tax schedule on taxable wages of \$19,004 million.⁶ This yields an income rate on taxable wages of 2.54 percent. Because taxable wages are expected to represent only about 28 percent of total wages for 2004 we obtain a maximum income rate of 0.71 percent. This rate is down slightly from the June 2002 value of 0.72 percent. By comparison, the maximum income rates for 1988 and 1989 were considerably higher at 1.3 percent and 1.0 percent, respectively.

The capacity ratio describes the ability of the tax structure to replenish reserves. This ratio, which is figured by dividing the maximum income rate by the benefit cost rate, stands at 168.5 percent for 2003. This means that the system will generate roughly 68 percent more revenue at the maximum rate schedule than needed to cover expected benefit payouts. In 2002 the capacity ratio stood at 172.3 percent. If, however, the long-term benefit cost rate is used to estimate capacity ratios, we obtain respective figures of 126.6 and 129.4 percent for 2003 and 2002. The estimated capacity ratio for 1990 was 125.8 percent. Using the long-term benefit cost rate, the system's revenue capacity thus appears to have changed little.

The apparent lack of change between 1990 and 2003 in the system's revenue capacity obtained by using the long-term benefit cost is misleading. It is desirable that the tax structure has the capability of maintaining roughly the same

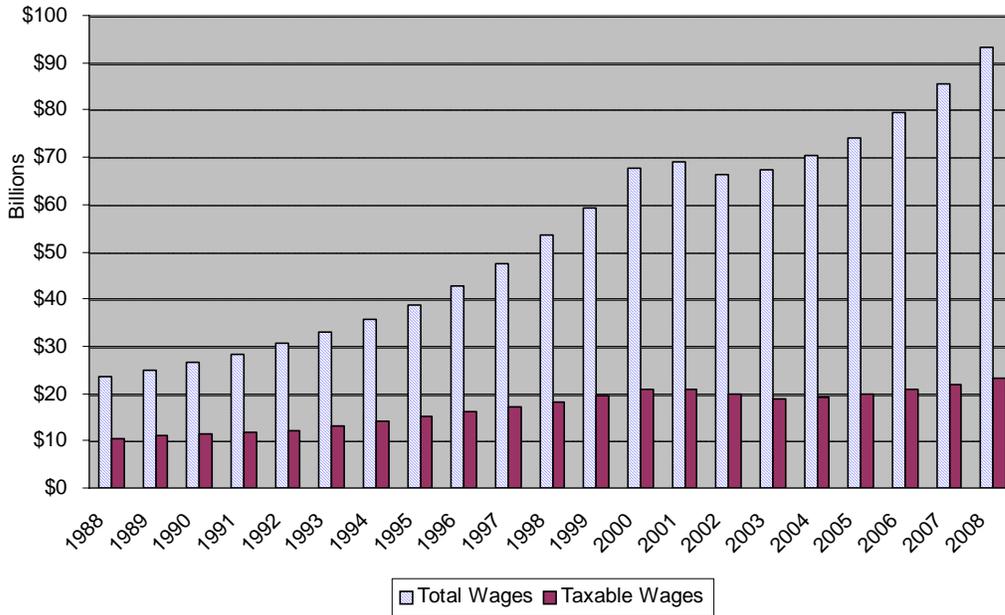
⁵ Over shorter periods the cost rate can greatly fluctuate. For instance, the benefit cost rate for 2001-2002 was 0.797 percent.

⁶ This includes one-half of the socialized surcharge revenues but excludes any revenues derived from the solvency surcharge. Solvency revenues are not included in the maximum rate calculation because they represent monies available under exceptional circumstances rather than a long-term source of reliable income.

share of taxable to total wages each year. Because maximum weekly benefit amounts are tied directly to average weekly earnings, this condition would allow the tax base to remain stable relative to potential claimant benefit liability.

When the maximum taxable wage base was increased to its current level of \$10,000 in 1988, average covered wages for private sector workers in Colorado was \$21,113, so that the maximum wage base as a percent of average wages equaled 47 percent. With current private sector annual earnings in Colorado at \$38,012 in 2002, the maximum taxable wage base now represents only slightly more than 26 percent of average annual wages. In order to achieve parity with the 1988 wage base the 2002 maximum taxable wage base would have to be set at \$18,000.⁷

Taxable Wages Increase More Slowly than Total Wages



Between 1988 and 2002, total wages paid by liable employers increased almost threefold while taxable wages doubled. As a result, the share of taxable to total wages has fallen from almost 45 percent to 30 percent. By 2008, taxable wages will make up only about 25 percent of total wages. These measures point to erosion of the trust fund’s revenue generating ability in the sense that a given rise in total wages will produce an increasingly smaller than proportional increase in

⁷ In fact, the 1988 maximum taxable wage base should have been \$12,000. Due to the time lag involved in processing quarterly employer tax reports, there is about a nine-month delay in determining the correct wage base. Because the maximum weekly benefit amount is calculated as 55 percent of the statewide weekly wage, the wage base for 1988 would have been $\$408.32 \times 52 \times .55$ or \$11,678. The same calculation would produce a maximum taxable wage base of \$21,000 for 2002.

taxable wages. The decline in the maximum income rate between 1988 and 2003 noted earlier is a consequence of the failure of taxable wages to grow at the same pace as total wages.

Colorado ranks about in the middle of all states in terms of its maximum taxable wage base. Twenty-one states now have a maximum taxable wage base greater than \$10,000.⁸ However, only three of these states had higher average private sector earnings than Colorado, and only one of these, Massachusetts, has a lower maximum taxable wage base in relation to annual private wages.

Reserve Adequacy. Trust fund adequacy refers to the reserve level that would allow benefit payments to be made over the course of a recession without borrowing. The adequate amount would be the reserves available to pay claimant benefits *immediately prior to the start of a recession* and does not imply a fund balance that should be maintained at all times. Adequacy levels are generally expressed as percentage shares of total wages.

Using seasonally adjusted nonfarm employment as a benchmark, we can date the peak of Colorado's expansion at December 2000. The observed trust fund balance as of December 31, 2000, the estimated beginning date of the Colorado downturn, was \$786.8 million, an adequacy ratio of 1.16 percent.

One guideline for establishing an adequate level of fund reserves involves first taking an average of several high benefit cost years (i.e., the ratio of benefits paid to total wages) observed over a long period. Since 1978, the three highest benefit cost years occurred in 1982, 1983, and 1986. The average cost rates for these years is 1.106 percent suggesting that just over one percent of total wages would be paid annually in benefits during periods of extreme economic stress. The generally held assumption has been that a typical slump in the State's economy would likely last no longer than eighteen months so that a worse case scenario would require a rate on total wages of about 1.7 percent in order to cover benefits.⁹ This would establish the lowest rate schedule in the tax table since reserves must be at least this amount before the minimum rate goes into effect.

Estimating total wages for 2000 at \$67,816.1 million, this approach indicates a value of \$1,152.9 million sufficient to avert insolvency. The current tax table, which has not been revised since 1991, is based upon \$450 million as the adequate amount.¹⁰

⁸ Hawaii had a maximum taxable wage base of \$30,200 in 2002. Alaska, Idaho, Minnesota, Nevada, New Jersey, Oregon, Utah, and Washington all have maximum wage bases that exceed \$20,000.

⁹ Calculated as 1.106×1.5 .

¹⁰ All intervals along the tax table would need to be adjusted on a pro-rata basis should any new adequate reserve level be established.

The length of the State's current economic slump makes the use of an eighteen-month yardstick questionable for determining adequacy. Establishing a cycle bottom is difficult due to conflicting movements among economic indicators. So long as local nonfarm payrolls continue their slide, however, it will be difficult to convincingly call an end to the State contraction.

With this in mind, we might reasonably consider thirty-six months as better approximating the worse case recession against which the fund must insure. This doubles both the tax rate required to cover the three highest benefit cost years as well as the adequacy level itself. The average employer tax rate would then rise to 3.4 percent while the fund solvency level would rise to \$2,305.8 million. Clearly, this level is too large to permit the use of a thirty-six month insurability criterion and should probably only be considered an upper limit to fund adequacy.

Previous department research indicated that a reserve level equal to 1.6 percent of total wages was great enough to allow Colorado's trust fund to withstand both the 1973-75 and 1980-82 recessions without going into deficit. Using this standard and applying to calendar year 2000 wages produces a suggested reserve adequacy level of \$1,085.1 million, an estimate close to that that generated by the eighteen-month criterion.

An adequate reserve amount can only be determined with certainty retrospectively, i.e., once a recovery is clearly underway and fund assets have begun steadily growing. This is not yet the case—we do not yet know whether a cycle bottom has been reached or what shape a rebound will take.

However, a conservative trust fund forecast can be used to estimate the lowest fund balance that will occur over the next several years. According to this forecast, the low quarter-end trust fund balance through 2008 will be about \$37 million and occur March 31, 2005. Allowing some room for error as well as the fact that the actual daily flows of cash into and out of the fund will likely bring the intra-month balances below this level, it is anticipated that the fund might easily reach a zero balance sometime between February and May 2005.¹¹

This suggests that a fund balance of about \$930 million as of year-end 2000 might have been large enough to see the fund through the present downturn without going insolvent.¹² This makes up about 1.4 percent of total wages for calendar year 2000.

¹¹ The same situation holds for first and second quarters 2004. However, in both 2004 and 2005 any fund deficit is likely to be short-lived because solvency surcharge revenues should quickly return the fund to solvency.

¹² The December 31, 2000 balance of \$786.8 plus an additional \$142.7 million to adjust for the Reed Act transferred in 2003.

Trust Fund Forecasts. Although the 2001 national recession was about equal in length to the average post-War slump, the subsequent recovery has differed from most previous rebounds in several respects.¹³ The most obvious and important difference has been the lack of job creation accompanying the increase in national output. Some economists attribute robust productivity levels for the lack of business hiring. Other explanations include smaller than trend growth in output and low levels of industrial capacity utilization.

A comparison by the Federal Reserve Bank of Kansas City of the 1991 and 2002 recoveries with prior rebounds illustrates some of the dramatic changes that have taken place in the nation's labor markets over the past half century.¹⁴ In addition to delayed job growth lasting well beyond that of the initial recovery period, the last two economic upturns have shown a much greater use of part-time and temporary workers. Corporate reliance upon overtime hours as a means of expanding production has also become more widespread during the last two business cycles. The overall picture is one of increasing adoption of just-in-time employment practices, analogous to the inventory management techniques that became prevalent during the 1980's.

The use of just-in-time hiring may be related to the stubbornly high levels of long-term unemployment seen over the last two years. Moreover, the 1991 and 2002 rebounds saw a much greater share of job losers on permanent layoff than was evident in prior recoveries, something that may also be symptomatic of changes in business hiring practices. A decline in the proportion of persons likely to be recalled after layoff, along with modest job growth, implies longer work search times for unemployed individuals. This situation could lead to the average duration of unemployment claims remaining at comparatively high levels for several years.

Tax cuts, low interest rates, continued mortgage refinancing activity, and increased federal spending related to the war in Iraq have all contributed to a recent surge in economic growth. National output advanced at a very strong 8.2 percent annual pace during 2003:3. More significant, about 300,000 nonfarm jobs were created during the quarter, suggesting that businesses are beginning to see large enough increases in demand to support payroll expansions.

Still, these employment gains are modest by historical standards. Sustained monthly gains of about 150,000 are probably required to stabilize the labor force and allow the jobless rate to begin declining. These types of job numbers can likely only be generated by persistent gross domestic product growth of at least four percent.

¹³ The 2001 downturn was slightly shorter in duration than the average contraction of the last 60 years. However, like the 1991 recession, the lack of subsequent job growth has been its most prominent feature thus far.

¹⁴ Stacey Schreft and Aarti Singh, "A Closer Look at Jobless Recoveries." Federal Reserve Bank of Kansas City Economic Review, Second Quarter 2003, pp. 45-73.

The timing and extent to which Colorado will follow any national recovery is unclear. It appears probable that revised 2003 data will show wage and salary job losses at least on the order of 15-25,000 or somewhere between one-half and one percent. Coming on the heels of record job losses in 2002, seasonally adjusted business payrolls will have shrunk roughly 80,000 since peaking in December 2000.

Several economic indicators, such as the unemployment rate, retail sales, and initial unemployment filings, began showing signs of stabilization earlier this year. However, the local economy remains burdened by surplus capacity in key areas like telecommunications, technology, and manufacturing. Moreover, office vacancies will continue at high levels until job growth accelerates and increases the demand for office space. Residential building, which had been supported by low interest rates, has cooled in response to slower population growth.

Health care, amusement and recreation, and business services are among the sectors projected to see moderate hiring next year. Small gains in transportation and wholesale trade may occur as well should national economic growth continue above trend.

These factors, along with the spread of just-in-time hiring practices, point to very modest employment gains over the near-term. The most likely scenario for Colorado suggests job losses of about one percent in 2003, followed by a 1.0 percent increase in 2004. Employment gains progressively increase and finally reach the long-term yearly growth rate of 3.5 percent by 2008. This outlook for job growth is slightly more optimistic than that of both OSPB and Legislative Council. Neither anticipates wage and salary employment to exceed 3.0 in any year through 2008.

Because of restrained labor demand, it is projected that wage growth over the forecast period will remain similarly subdued. Covered private weekly earnings are expected to advance no more than 2.5 percent in 2003, rise moderately in both 2004 and 2005 and gradually grow by 5.0 percent by 2008. The most probable forecast has the insured unemployment rate unchanged at 2.0 percent in 2003 before declining to one percent in 2006 and remaining there through 2008.

Under these conditions, the UI Trust Fund balance approaches marginally solvent quarter-end lows of \$48.1 million on March 31, 2004 and \$26.7 million on March 31, 2005. Fund reserves quickly re-accumulate in the immediate following quarter because employer contributions, which are always greatest in the second quarter of each year, are magnified by the additional revenues generated by the

solvency surcharge. The fund balance thus increases to \$114.8 million by June 30, 2004 and \$182.6 million one year later.¹⁵

Because the solvency rate schedule increases the effective employer tax rate each consecutive year the surcharge is on, the additional revenues flowing to the fund in 2004 are not as great as subsequent years. Surcharge derived taxes therefore allow the fund to remain just solvent throughout 2004, but have an increasingly greater impact in each of the following four years.

Moderate CDLE Trust Fund Forecast

Millions of Dollars

	FY 2003	Est FY 2004	Est FY 2005	Est FY 2006	Est FY 2007	Est FY 2008
Beginning Balance July 1	\$632.4	\$298.7	\$114.8	\$182.6	\$413.7	\$706.7
Plus Income Received						
Taxes	\$173.4	\$266.2	\$437.3	\$544.2	\$579.7	\$612.0
Interest	\$28.8	\$12.6	\$5.7	\$12.5	\$29.3	\$48.7
Total Revenues (cash basis)	\$202.2	\$278.8	\$443.0	\$556.7	\$609.0	\$660.7
Revenue from Solvency Surcharge	\$0.0	\$29.4	\$93.2	\$163.1	\$240.1	\$316.4
Less Benefits Paid (cash basis)	\$533.6	\$462.7	\$375.2	\$325.6	\$316.0	\$342.3
Ending Fund Balance June 30	\$298.7	\$114.8	\$182.6	\$413.7	\$706.7	\$1,025.1
Tax Rate Schedule in Effect (CY)	450+	270-306	90-126	162-198	396-450	450+
Fund Balance as a Percent of Total Annual Private Wages	0.45%	0.17%	0.26%	0.56%	0.89%	1.20%
Forecast Model Assumptions (CY)						
Insured Unemployment Rate	2.00%	1.50%	1.25%	1.00%	1.00%	1.00%
Percent Growth Average Weekly Wage	2.50%	3.50%	3.50%	4.00%	4.50%	5.00%
Percent Growth Covered Employment	-1.00%	1.00%	2.00%	3.00%	3.25%	3.50%

Surcharge revenues, which will make up only 11 percent of total contributions for fiscal year 2004, are forecast to comprise slightly more than one-half of all non-interest fund revenues by fiscal year 2008. By June 30, 2008, the trust fund is projected to reach a balance of \$1,025.1 million with the fund adequacy ratio reaching 1.2 percent at that time. The highest employer tax rate schedule hits the 90-126 million interval in 2005 but gradually declines to the 450 million and greater schedule by 2008.

The long-term decline in the share of taxable to total wages continues unabated under these conditions. Taxable wages, which made up 30 percent of total wages in 2002, drop to less than 25 percent of total wages by 2008. Although total wages are expected to grow slightly in 2003 and exceed their 2001 peak by 2004, taxable wages do not recover enough to surpass their cycle maximum again until 2006.

¹⁵SB03-296 transferred one-half of the 2004 fiscal year socialized surcharge revenues from the trust fund to the State's general fund. Trust fund revenues are estimated to be lower by \$20 million because of the diversion.

This moderate forecast has the solvency surcharge in effect for rate years 2004 through 2008 but triggering off June 30, 2008, and ending December 31, 2008. The 20 percent tax credit, which becomes effective when the adequacy ratio exceeds 1.1 percent on the computation date, switches on and becomes effective January 1, 2009.

An alternate forecast incorporating the impact of an increase in the maximum taxable wage base can also be made. In this scenario, changes in the insured unemployment rate, private wages, and covered employment are identical to those assumed in the most likely forecast while the wage base is assumed to have risen to \$18,000 beginning 2003 and then remain fixed throughout the remainder of the forecast horizon.

Moderate CDLE Trust Fund Forecast
Maximum Taxable Wage Base = \$18,000 for 2003- 2008

Millions of Dollars

	FY 2003	Est FY 2004	Est FY 2005	Est FY 2006	Est FY 2007	Est FY 2008
Beginning Balance July 1	\$632.4	\$345.8	\$281.1	\$470.2	\$803.2	\$1,047.4
Plus Income Received						
Taxes	\$215.7	\$368.7	\$546.6	\$626.2	\$504.7	\$340.8
Interest	\$31.3	\$18.1	\$17.6	\$32.4	\$55.5	\$68.7
Total Revenues (cash basis)	\$247.0	\$386.8	\$564.2	\$658.6	\$560.2	\$409.5
Revenue from Solvency Surcharge	\$0.0	\$41.5	\$132.6	\$233.3	\$151.9	\$0.0
Less Benefits Paid (cash basis)	\$533.6	\$451.5	\$375.1	\$325.6	\$316.0	\$342.3
Ending Fund Balance June 30	\$345.8	\$281.1	\$470.2	\$803.2	\$1,047.4	\$1,114.6
Tax Rate Schedule in Effect (CY)	450+	342-396	270-306	450+	450+	450+
Fund Balance as a Percent of Total Annual Private Wages	0.51%	0.41%	0.66%	1.07%	1.31%	1.29%
Forecast Model Assumptions (CY)						
Insured Unemployment Rate	2.00%	1.50%	1.25%	1.00%	1.00%	1.00%
Percent Growth Average Weekly Wage	2.50%	3.50%	3.50%	4.00%	4.50%	5.00%
Percent Growth Covered Employment	-1.00%	1.00%	2.00%	3.00%	3.25%	3.50%

Under these circumstances, fund reserves begin recovering more quickly. By June 30, 2008 the trust fund balance reaches \$1,114.6 million or 1.3 percent of total wages. Rather than remaining on during the entire forecast period, the solvency surcharge stays in effect only for rate years 2004 through 2006, triggering off December 31, 2006. At the same time, the 20 percent employer tax credit triggers on mid-2007 and becomes effective January 1, 2008. It is estimated the tax credit would save Colorado employers \$65.4 million in that year. Had the wage base been increased beginning 2003 the highest rate schedule in effect over the forecast period would have been the 270-306 interval in 2005.

Raising the maximum taxable wage base goes a long way toward restoring the relationship of taxable to total wages that existed in 1988. An increase in the

2003 wage base has the immediate effect of raising the taxable share of total wages to 43 percent in that year before gradually falling to 40 percent by 2008.

It is also possible to estimate the impact of an indexed taxable wage base upon the trust fund. Indexing the wage base to the annual change in average weekly wages would halt the long-term erosion of the taxable wage to total wage ratio and make future ad hoc adjustments to the wage base unnecessary. This would stabilize the revenue generating capacity of the system, allowing it to maintain pace with the long-term increase in average weekly benefit amounts. Eighteen states currently index their maximum wage base.

Moderate CDLE Trust Fund Forecast
Maximum Taxable Wage Base = \$18,000 for 2003
Wage Base Indexed 2004- 2008

Millions of Dollars

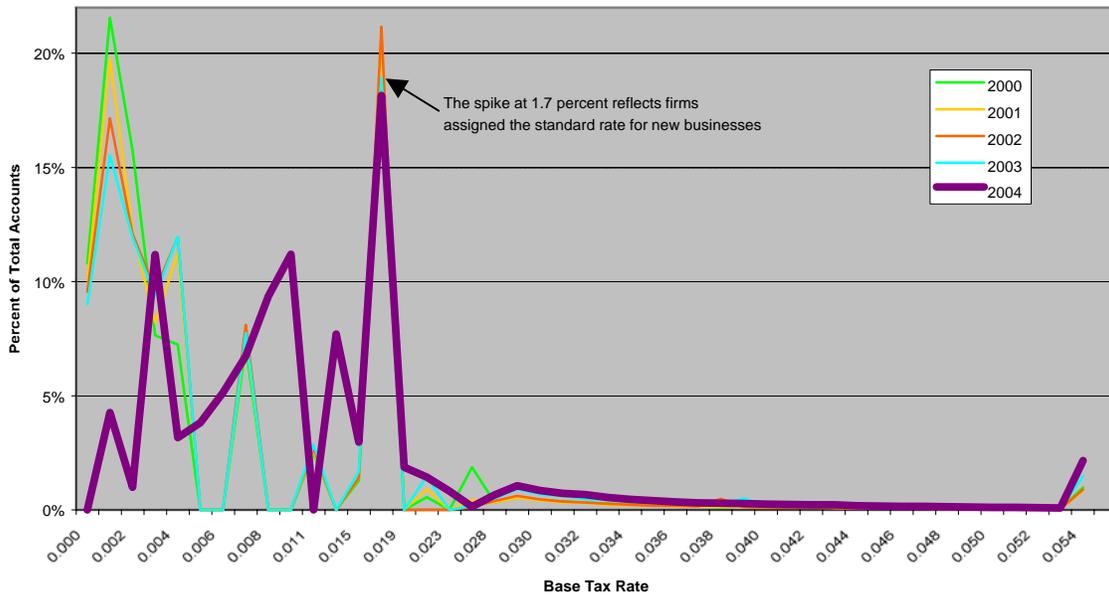
	FY 2003	Est FY 2004	Est FY 2005	Est FY 2006	Est FY 2007	Est FY 2008
Beginning Balance July 1	\$632.4	\$345.8	\$288.0	\$495.6	\$862.4	\$1,151.2
Plus Income Received						
Taxes	\$215.7	\$375.6	\$564.5	\$658.0	\$544.8	\$381.0
Interest	\$31.3	\$18.1	\$18.2	\$34.4	\$60.0	\$76.0
Total Revenues (cash basis)	\$247.0	\$393.7	\$582.7	\$692.4	\$604.8	\$457.0
Revenue from Solvency Surcharge	\$0.0	\$42.8	\$137.4	\$246.7	\$162.7	\$0.0
Less Benefits Paid (cash basis)	\$533.6	\$451.5	\$375.1	\$325.6	\$316.0	\$342.3
Ending Fund Balance June 30	\$345.8	\$288.0	\$495.6	\$862.4	\$1,151.2	\$1,265.9
Maximum Taxable Wage Base	\$18,000.0	\$19,000.0	\$19,000.0	\$20,000.0	\$21,000.0	\$22,000.0
Tax Rate Schedule in Effect (CY)	450+	342-396	270-306	450+	450+	450+
Fund Balance as a Percent of Total Annual Private Wages	0.51%	0.42%	0.70%	1.15%	1.44%	1.47%
Forecast Model Assumptions (CY)						
Insured Unemployment Rate	2.00%	1.50%	1.25%	1.00%	1.00%	1.00%
Percent Growth Average Weekly Wage	2.50%	3.50%	3.50%	4.00%	4.50%	5.00%
Percent Growth Covered Employment	-1.00%	1.00%	2.00%	3.00%	3.25%	3.50%

Raising the maximum wage base to \$18,000 beginning calendar year 2003 and indexing the base each year to changes in average covered wages generates a more favorable outlook for fund solvency than either of the preceding forecasts. Using the same economic assumptions about job and wage growth as in the other forecasts, trust fund reserves progressively expand to \$1,265.9 million by mid-2008. The adequacy ratio reaches nearly 1.5 percent at this time while the tax rate schedules in effect are identical to those for the one-time increase to \$18,000.

Under these circumstances, the share of taxable to total wages rises from about 43 percent in 2003 to 45 percent by 2008. The solvency surcharge stays on from 2004 to 2006 while the 20 percent tax credit triggers on for 2007 and 2008, with combined employer savings of \$143.3 million.

Employer Tax Rates. The distribution of base UI employer tax rates changed little between 2000 and 2003. The steady rebuilding of trust fund reserves since the mid-1980's meant the lowest tax schedule was in effect during this period while declining benefit charging drove employer percent excess calculations to very low levels. By 2004, however, the worsening local economy had significantly altered the shape of the tax distribution curve.

Percentage of Colorado Employers by Base Tax Rate



The most prominent change involves a sharp drop in the number of firms assigned base rates of 0.4 percent or less. Although approximately 55 percent of all establishments were assigned base tax rates of 0.4 percent or less from 2000 through 2003, the expected number for firms within the same interval will drop to about 20 percent for 2004. In particular, no accounts will be assigned a base tax rate of zero in 2004. In contrast, between 2000 and 2003 the number of zero-rated businesses made up about 10 percent of all firms. Meanwhile, the share of maximum rated firms, while remaining quite small at about 2 percent, roughly doubled between 2000 and 2004. The general pattern of the 2004 distribution will likely hold for several years.¹⁶

Unemployment insurance serves a well-known and important role as a counter-cyclical economic stabilizer. By injecting money into the economy during economic slumps, unemployment payments help maintain consumer spending

¹⁶Because of the anticipated move to higher rate schedules over the next few years, the distribution of employer tax rates will probably reflect a continued decline in the share of low rated employers. Nevertheless, the overall shape of the distribution curve will probably remain similar to that for 2004.

by unemployed persons and thus support business demand. However, its function as an insurance fund makes it difficult to design an employer tax structure that serves the same counter-cyclical goals. Increased claimant payouts during economic downturns force employer tax rates up during those times when business conditions make rising taxes most burdensome. The increase in employer tax rates therefore acts as a pro-cyclical mechanism during recessions, i.e., one that exacerbates existing economic trends by acting in the same direction.¹⁷ The 20 percent employer tax credit can also be considered pro-cyclical. The credit triggers on during prosperous economic times and reduces tax rates when rates are already relatively low due to high trust fund levels and low benefit charging.

Tax rate levels are related to the concepts of forward financing and deficit-financing schemes. Forward financing refers to a tax structure that allows assets to be built up sufficiently to pay benefits without resorting to borrowing. The alternative is deficit-financing, in which borrowing becomes an integral part of the system's structure and is used as a means of covering liabilities. Forward financing is generally considered preferable because of the borrowing costs associated with deficit-financing. A desirable objective of UI financing is to keep employer tax rates as low as possible while at the same time building a large enough reserve fund to cover future claimant liabilities. Low rates may lead the fund into insolvency during recession while high rates could cause the accumulation of excessive reserves.

Average employer tax rates can be estimated as expected employer contributions divided by total wages paid. Examining average tax rates for the three forecast conditions presented earlier demonstrates the trade-offs related to each.

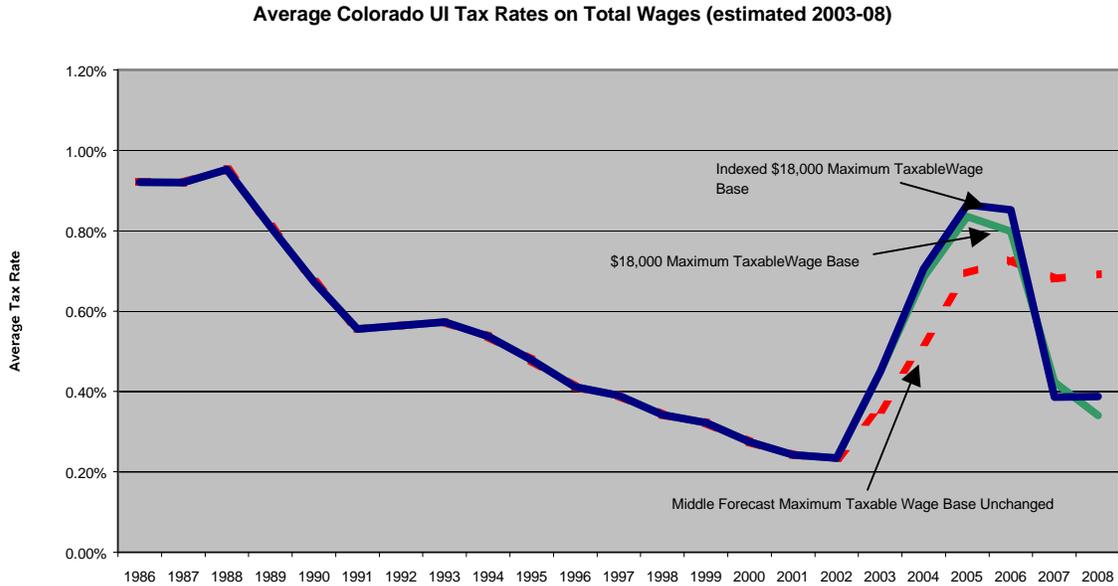
Under status quo financing conditions, employer rates are anticipated to double over the next few years and remain at relatively high levels for several years following. In this case, employer tax rates increase from about 0.35 percent in 2003 to 0.7 percent in 2005 and stay there through 2008. This happens because the solvency surcharge remains in effect throughout the entire forecast period and offsets the lower rates that would normally become effective as the trust fund balance increases. The estimated average tax rate for 2004-2008 is 0.65 percent under these conditions.

By comparison, expanding the wage base to \$18,000 drives employer rates to higher peaks, but also allows them to return more quickly to relatively low levels. In this scenario, average employer rates go from 0.45 percent in 2003 to 0.8 percent in 2005 and 2006. However, rates for 2007 and 2008 drop to 0.42 and 0.34 percent, respectively. Because the surcharge triggers off earlier, employers

¹⁷ The positive consumption effect upon demand is assumed to dominate the negative effects of higher tax rates otherwise there would not be a positive overall impact. Of course, the decrease in rates during boom times is also pro-cyclical.

benefit by the rapid rebuilding of fund assets and the return to lower rate schedules. As a result, the average employer tax rate when the maximum wage base is raised is 0.57 percent, lower than the status quo rate.

Rates for the indexed maximum wage base are expected to closely follow the same pattern as those of the fixed \$18,000 wage base forecast. Indexing the wage base to growth in worker earnings is projected to increase the five-year average tax rate to 0.60 percent.

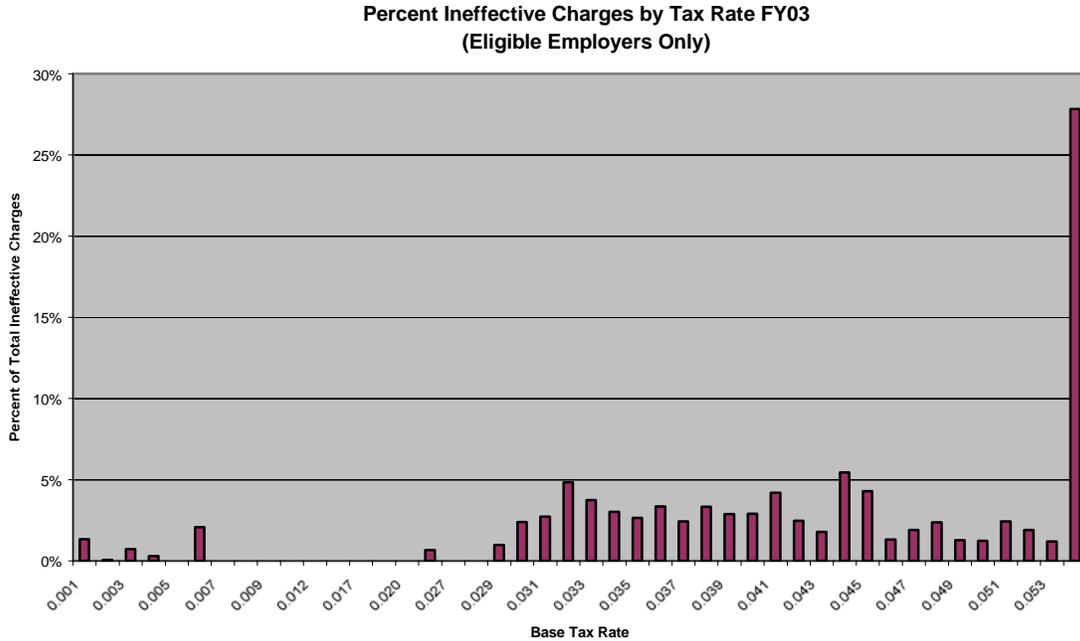


Benefit Subsidization. The issue of cross subsidization of benefit payments via the tax structure has been long recognized. Unemployment insurance financing is based upon the principle of experience rating, i.e., linking employer tax rates to a firm’s layoff history through the percent excess calculation. Over time, employer accounts with large benefit charges against them in relation to payroll size will tend toward higher tax rates than those with relatively small amounts of benefit charging, thus creating a disincentive for firms to use layoffs as a way of systematically managing staffing levels.

However, this idea breaks down at the maximum tax rate. A firm being assessed the maximum rate may no longer have a reason to minimize layoffs, presenting a type of moral hazard problem often associated with insurance systems.

The difference between the amount of benefits charged against a firm and the amount it pays in taxes is referred to as an ineffective charge. Some ineffective charging is generally unavoidable, since there is no reason for benefit charges and contributions to be equal, particularly over short time periods. Because benefit claims are paid from the trust fund regardless of how much an individual

firm pays into the fund in way of contributions, those employers with significant and persistent amounts of ineffective charges are essentially being subsidized by other employers with less benefit charging.



The distribution of ineffective charging between July 2002 and June 2003 illustrates the problem. Of the roughly \$183 million in total ineffective benefit charges incurred over this period, about \$51 million or 28 percent of ineffective charges were attributable to maximum rated employers. Employers with assigned rates of 0.3 percent or less accounted for only about 9 percent of all ineffective charges despite making up nearly 92 percent of all employers.

Summary. In some respects, the overall financing structure of the UI system does not appear to be in need of major reform. Various measures show the structure of the system to be reasonably sound, such as a long-term benefit cost rate that lies between the minimum and maximum estimated tax rates. This is encouraging considering that no significant modifications to the tax structure have been made since the maximum taxable wage base was increased to \$10,000 effective in 1988 and the solvency surcharge was introduced in 1991. Their implementation more than a dozen years ago will prove vital in helping the fund maintain a positive reserve balance during Colorado’s current economic slump.

Assuming a moderate recovery over the next five years, the solvency surcharge should bolster fund reserves both quickly enough and in large enough amounts to allow the fund to rapidly regain solvency should the trust fund become insolvent during the first half of 2004 or 2005. However, by 2008 the fund

adequacy ratio is forecast to reach only 1.2 percent, a level that may be short of that needed to guard against another downturn without federal borrowing.

This status quo outcome illustrates the eroding revenue generating capacity of the UI system. Weekly benefit amounts are directly linked to the growth in average wages. So long as the maximum taxable wage base remains fixed at \$10,000, the share of taxable earnings to total wages will progressively shrink. This ratio, which stood at 45 percent in 1988, has fallen to 30 percent at present and will drop another five percentage points by 2008.

It is noteworthy that fifteen years of uninterrupted economic growth, including a period of exceptional advances from 1992 to 1997, did not allow fund revenues to grow to a level sufficient to ensure solvency through this cycle. This jeopardizes the forward financing character of the system and moves financing toward one where periodic borrowing is used as a tool to prop up fund reserves until growth resumes and permits the fund to achieve long-term solvency. Adoption of a deficit financing system will not lower long-term employer tax rates but will only delay the imposition of higher tax rates by shifting them farther into the future.

Current forecasts show that relying upon the surcharge to maintain fund solvency may actually have the effect of causing average five-year rates to be slightly greater than they would be if the wage base were increased. This is because raising the taxable wage base causes the surcharge to trigger off earlier and build up fund reserves more quickly.