

The Gain to Work for Low- and Moderate-Income Workers

Changes in Effective Tax Rates 1998–2004

This information brief explains how changes to taxes, cash assistance, and in-kind public benefits may have affected the take-home pay of low- and moderate-income workers in Minnesota. The authors studied an example family of a single parent with two children, calculating the effective tax rates for each \$100 increment to earnings.

Introduction

The work incentives facing low- and moderate-income workers are the result of a complex system of federal and state taxes, tax credits, and expenditure programs, each with its own eligibility rules and effects on a household's income. Taken individually, few of the credits and expenditures effectively tax earnings in excess of 20 percent; in combination though, they can substantially reduce the gain from increased earnings. This information brief examines gain from work, which is the increase in income net of taxes and public benefits relative to a \$100 increase in earnings. Or stated another way, it is the percentage of earnings retained after taxes and changes in public benefits.

* Paul Wilson is a former fiscal analyst in the Fiscal Analysis Department of the Minnesota House of Representatives. This publication has been modified from an article Wilson and Donald Hirasuna previously published: "Effective Tax Rates Facing Minnesota's Low- and Moderate-Income Workers: 1998 to 2004," *State Tax Notes*, volume 36, number 7, May 16, 2005.

In summary, the study finds:

- Under 2004 law, the percentage of earnings retained depends upon a household's earnings before the wage increase.
- The impact of changes in laws from 1998 through 2004 combined to increase the gain from working for households with incomes between 70 percent and 150 percent of the federal poverty guidelines (FPG), while lowering the gain to work for households with incomes between 150 percent and 200 percent of FPG.
- Sometimes, alternative assumptions can make a difference. For instance, lower private sector health care and child care expenditures can increase the gain to work or take-home earnings.

The calculations for net income include the Minnesota Family Investment Program (MFIP cash and food assistance) and direct subsidies for medical care and child care. With the exception of the direct subsidies for child care, those are all entitlements. This study calculates effective tax rates for each \$100 increment to earnings.

Baseline Assumptions

The researchers assume a single parent with two children, ages 2 and 5. Both children are in child care at a cost equal to the median cost of licensed family day care in Rochester, which is the median of countywide child care rates within Minnesota.¹ Medical insurance costs are estimated with national data on medians for medical costs, number of medical visits, and prescriptions by age and gender. The family chooses the lowest-cost alternative between private and subsidized health insurance, in which cost is determined by the sum of premiums plus deductibles and copayments. Private insurance is constrained (in the baseline case) to policies with a deductible of no more than \$1,000 per person.

Study Findings

Under 2004 law, the percentage of earnings retained after taxes and public benefits depends upon the family's earnings before the wage increase.

Table 1 lists the average change in net income due to a \$100 increase in earnings for four earnings ranges. The table shows that for households with earnings below \$10,000, a \$100 increase in earnings results in an \$88 increase in net income. For households with incomes between \$23,500 and \$41,700, a \$100 increase results in a \$4 decrease in net earnings.

¹ Those receiving state child care subsidies (under Basic Sliding Fee child care) can retain their eligibility until their BSF income exceeds 250 percent of FPG. Families cannot enter the program, however, unless their income is below 175 percent of FPG. Figures 1 and 2 assume that the family is already on BSF child care, so the restriction on income at entry is not relevant. The impact of the difference between the exit point for current recipients and the maximum income at which families can enter the program is discussed later in the publication.

Table 1
Average Gain in Net Income Due to a \$100 Increase in Earnings Under 2004 Law

	Range			
	1	2	3	4
Total Earnings Prior to \$100 Increase	First \$10,800	\$10,800 to \$17,600	\$17,600 to \$23,500	\$23,500 to \$41,700
Gain in Income Net of Taxes, MFIP, Medical Costs	\$88	\$25	\$65	(\$4)
The average is calculated as the average increase in net income for every \$100 earned within the four different ranges.				

More detailed analysis shows many bumps and changes in retained earnings and that these bumps are caused by the cumulative effects of taxes and changes in public benefits.

Figure 1 (on [page 5](#)) graphs net income over a continuous range of earnings and shows how the gain from work varies within each of the four ranges. Table 2 (on [page 6](#)) lists the change in net income by each of its components. The brief discusses both the average gain and reasons for variability within each of the ranges.

Range 1: Increases in earned income tax credits help offset decreases in welfare benefits and increases in income taxes (\$0-\$10,800). The gain from work averages \$88 per \$100 earned. Throughout this range, combined federal and state earned income tax credits rise by \$50 per \$100 earned, which almost offsets the reduction in MFIP benefits. Once earnings exceed \$1,600, the MFIP grant falls by \$64 per \$100 earned. Note the kink in net income at \$1,600 in Figure 1, when welfare benefits are first reduced.

Range 2: Continued phaseout of MFIP cash and food assistance lowers the net gain in income from the previous range (\$10,800-\$17,600). Over the next \$6,800 of earnings, the parent gains only an average of \$25 per \$100 of earnings. The lower gain to work is caused by combined effects of decreased welfare benefits, increased taxes, and a reduced earned income tax credit. Over this earnings range, first cash and then food assistance phases out at \$64 per \$100 earned. The federal earned income tax credit begins its phaseout (at \$21 per \$100) at \$14,040, or 90 percent of FPG. The family becomes subject to federal and state income taxes at a combined \$13 per \$100 when earnings exceed \$16,450 (104 percent of FPG). The parent loses Medicaid eligibility at 100 percent of the FPG and starts paying premiums for subsidized health insurance under MinnesotaCare, along with monthly payments for child care under Basic Sliding Fee (BSF) child care. In combination, these items and the Social Security tax reduce net income by \$98 per \$100 earned. This is partially offset by three tax credits. First, the federal child credit increases the gain from work by an average of \$17 per \$100 of earnings (\$15 in refundable credit plus an additional \$10 in nonrefundable credit per \$100 of earnings above \$16,450). Second, Minnesota's earned income credit increases net income by \$20 per \$100 of earnings above \$14,440. Finally, although the nonrefundable federal child care credit provides no benefit at this level of earnings (once adjusted for a dollar-for-dollar reduction in the federal child credit), the refundable Minnesota credit offsets one-third of the additional family payments for child care.

Range 3: The gain from work rises when households no longer face decreasing benefits from MFIP (\$17,600-\$23,500). Over the next \$5,900 of earnings, between 112 percent and 150 percent of FPG, the parent gains \$65 per \$100 of added earnings. The phaseout of MFIP has ended, but each additional \$100 of earnings raises taxes by \$23, reduces working family credits by an average of \$24, raises BSF child care payments by \$7, and raises health care costs by an average of \$2. This is partly offset by child-related tax credits. The refundable and nonrefundable child credits combined rise by \$25 for each \$100 of additional earnings until they reach their maximum at \$2,000 (at 133 percent of FPG), and the combined federal and state child care credits offset the higher BSF child care payments dollar for dollar.

Range 4: Gains to net incomes fall again when children are off Medicaid and parents pay higher amounts for Basic Sliding Fee and MinnesotaCare, and decrease less in tax credits (\$23,500-\$41,700). Over the next \$18,200 of earnings (earnings between 150 percent of FPG and 266 percent of FPG), there is no gain at all. The parent loses Medicaid eligibility for the children at 150 percent of FPG, which causes a switch to MinnesotaCare; this is the largest contributor to a \$684 drop-off in net income. Besides the switch to MinnesotaCare, changes in BSF, tax credits, and taxes all contribute to smaller gains throughout this range. Each \$100 of additional earnings results in a combination of changes that reduce the gain from work and include a higher tax liability (before credits) of \$27, lower federal and Minnesota earned income tax credits of \$19, higher medical care costs of \$20, and (for those qualifying for BSF child care) higher net child care costs of \$38. On average over this range, a family on BSF child care is financially worse off by \$4 for each additional \$100 of earnings.² As shown in Figure 1, there may be small gains or losses over portions of this income range, but the net income line never strays far from no net gain in income. Moreover, the averages exclude the \$4,900 cliff that occurs at the top of this earnings range (as seen in Figure 1) when the family becomes ineligible for BSF child care.

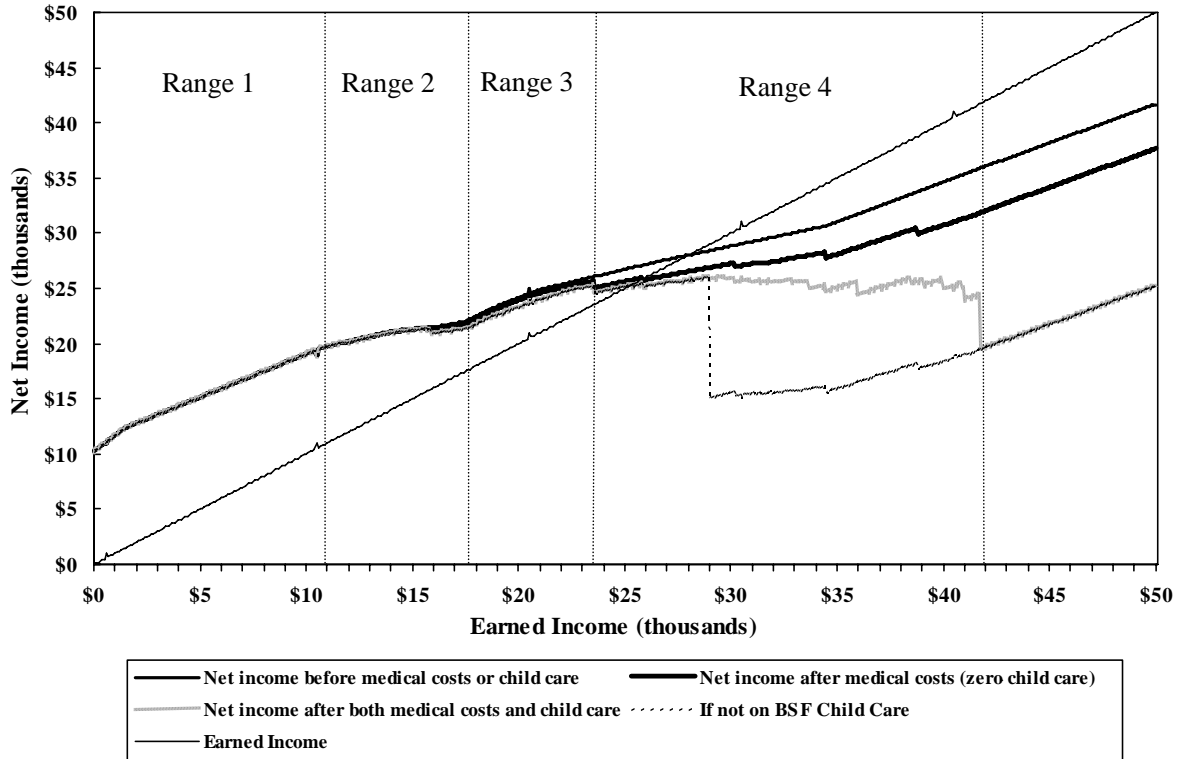
Although families already enrolled in BSF child care remain eligible as long as their BSF income (cash income minus health insurance premiums) is below 250 percent of FPG, families must enter BSF with income below 175 percent of FPG. Figure 1 shows net income if the family is ineligible for BSF. The figure shows the financial benefit from being on BSF (net of any offsetting child care credits) ranges from \$10,700 at \$29,000, to \$4,900 just before the exit earnings of \$41,700. As Figure 1 shows, a family not on BSF child care would need to earn more than \$50,000 to be as well off as a family on BSF and earning \$29,000.

To summarize, the system provides a strong incentive for earnings between zero and 70 percent and between 112 percent and 150 percent of FPG. In contrast, the parent gain in net income is weaker for earnings increases between 70 percent and 112 percent of FPG and near zero between 150 percent and 266 percent of FPG. Ironically, the exit point from cash welfare occurs when earnings equal 74 percent of FPG, so the first of these problem income ranges occurs after a parent has just worked her or his way off welfare.³

² This is calculated just *before* the \$4,900 cliff at \$41,700. If that cliff were included, the impact over this \$18,300 range of earnings would be a negative \$31 per \$100 of added earnings.

³ Cash MFIP ends at 74 percent of FPG for this family of three, but the food stamp portion, with its 36 percent work disregard, continues until 112 percent of FPG. The five-year limit on MFIP, however, applies to cash MFIP,

Figure 1
Net Income Compared to Earned Income in 2004
Single mother (age 25) with two children (baseline assumptions)
 (Vertical lines separate earnings ranges 1, 2, 3, and 4)



not to food stamps. Note also that when earnings equal 70 percent of FPG, disposable income equals 125 percent of FPG, so the family's income is well above the poverty level before facing these high effective tax rates.

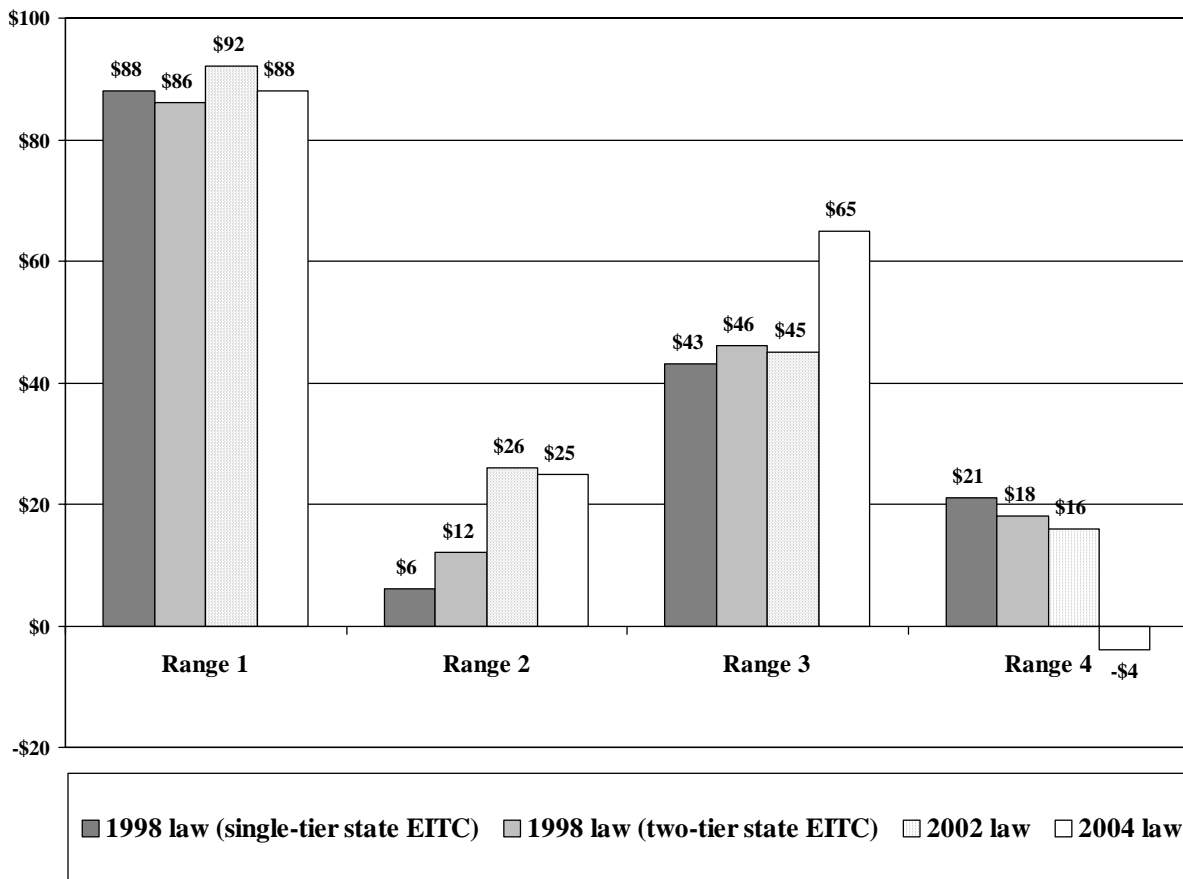
Table 2
Change in Net Income Per \$100 of Additional Earnings

Earnings Range	First \$10,800	\$10,800 to \$17,600	\$17,600 to \$23,500	\$23,500 to \$41,700
Earnings as Percent of Federal Poverty Guidelines	Up to 70%	70% to 112%	112% to 150%	150% to 266%
Full-time Hourly Wage at Top of Range	\$5.20	\$8.45	\$11.30	\$20.00
Income, Tax, Tax Credit, or Subsidy that Varies with Earnings				
Earned Income	\$100	\$100	\$100	\$100
Minnesota Family Investment Plan (MFIP) Cash and Food Assistance	(55)	(64)	--	--
Taxes Before Credits				
Social Security and Medicare Taxes (employee share)	(8)	(8)	(8)	(8)
Federal Income Tax Before Credits	--	(2)	(10)	(14)
Minnesota Income Tax Before Credits	--	(1)	(5)	(5)
Subtotal: Taxes Before Credits	(8)	(10)	(23)	(27)
Tax Credits				
Federal Child Credit (assuming no child care expense)	0	17	15	--
Federal Earned Income Tax Credit	40	(11)	(21)	(13)
Minnesota Working Family Credit	10	4	(3)	(6)
Subtotal: Tax Credits (assuming no child care expenses)	50	9	(10)	(19)
Income Net of Taxes if Medical and Child Care Costs are Zero	\$88	\$35	\$67	\$54
Medical Costs (copays, MinnesotaCare premiums)	\$0	(\$3)	(\$2)	(\$20)
Child Care Costs				
Child Care Costs (MFIP or Basic Sliding Fee child care)	0	(10)	(7)	(41)
Federal Child Care Credit (Net of Loss of Child Credit)	0	0	6	5
Minnesota Child Care Credit	0	3	2	(2)
Subtotal: Child Care Costs Net of Tax Credits	\$0	(\$7)	\$0	(\$38)
Income Net of Taxes, MFIP, Medical Costs, and Child Care Costs	\$88	\$25	\$65	(\$4)

The impact of changes in laws from 1998 through 2004 combined to raise the gain to work for households with incomes between 70 percent and 150 percent of the federal poverty guidelines, while lowering the gain to work for households with incomes between 150 percent and 200 percent of the federal poverty guidelines.

Figure 2 compares the gain from earning an additional \$100 in 2004 with what the gain would have been in 2004 under the laws in effect in 1998 and 2002. Prior-year law was applied to 2004 by growing parameters that were indexed for inflation under earlier law. Many tax parameters are indexed for inflation, as are eligibility levels and payment schedules for some expenditure programs. Thus Figure 2 compares current law with hypothetical prior laws and does not show the actual work incentives that applied in past years.

Figure 2
**Gain from Additional \$100 of Earnings in 2004
 Under Alternative Laws**



Changes to individual programs affect the gain to work for families.

What follows is a listing of major policy changes in 1998 and later years and a description of their impact on effective tax rates for the single-parent example used in this study.

Switching to a two-tier working family credit lowered the gain in net income for ranges 1 and 4, but increased it in ranges 2 and 3. Minnesota decoupled from the federal earned income tax credit (EITC) in 1998 and enacted a two-tier tax credit to address work disincentives near the poverty level, where increased earnings led to a drop in net income. Compared with the previously enacted rate of 25 percent of the federal EITC, the second-tier credit increased the gain from work and delayed the start of the credits. The costs of adding the second tier were financed by effectively reducing the first-tier credit rate for a family with two children from 10 percent to 8 percent. The maximum credit was increased, and it was phased out over a narrower range. As can be seen in Figure 2, the gain from additional earnings rose in ranges 2 and 3 and fell in ranges 1 and 4. The law change improved work incentives in the targeted range, but Figure 3 shows that this 1998 change reduced the after-credit income of those with incomes below the poverty level while helping higher income EITC recipients.

Expansion of the state EITC slightly increased the gain to work: Minnesota increased its credit rates in 1999 and 2000. The phaseout range was unchanged, so the higher credit rates meant higher phaseout rates as well. That increased the gain from work by \$2 per \$100 in range 1 and reduced it by about \$1 per \$100 in ranges 3 and 4.

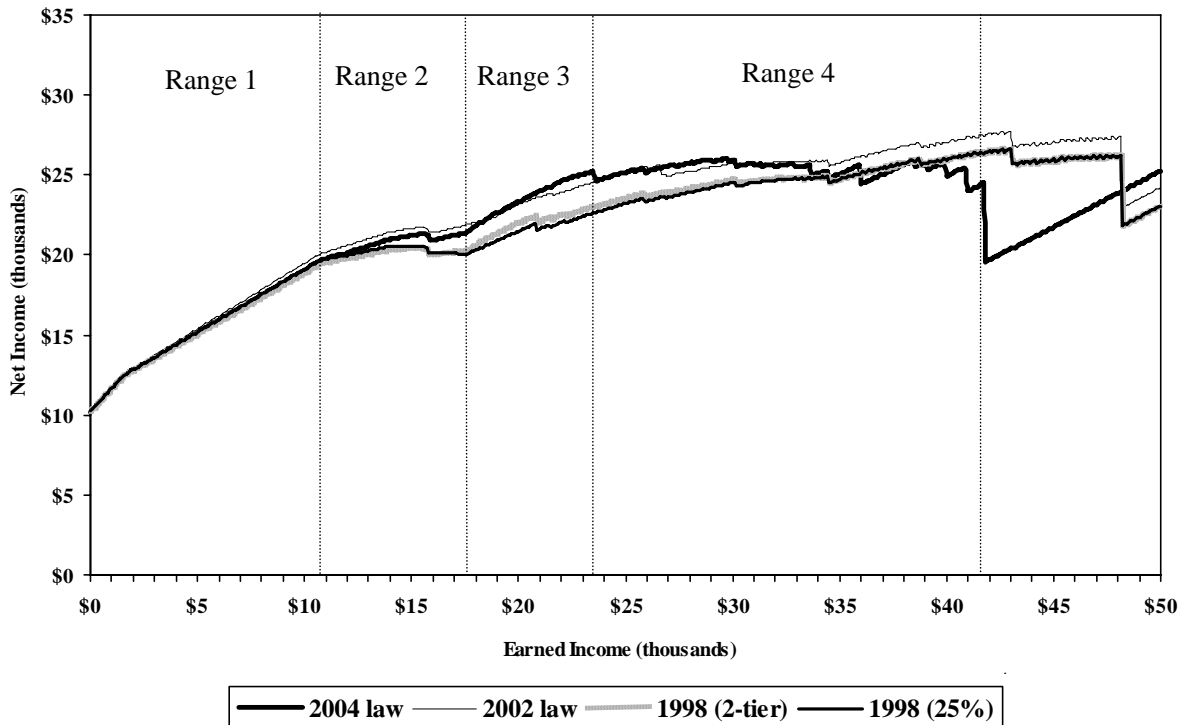
Reduced income tax rates raise the gain to work for ranges 3 and 4: Between 1998 and 2002, Congress reduced the first federal income tax rate from 15 percent to 10 percent, which raised the gain from work by \$5 per \$100 in range 3 and by a small amount in range 4. A cut in the Minnesota tax rates raised the gain from work by another 70 cents per \$100 in ranges 3 and 4.

Expanded federal child credit raised the gain in net income for range 2: Two major changes took place in the child care credit between 1998 and 2004. First, the maximum 2004 per-child credit rose from \$500 under 1998 law to \$600 under 2002 law and \$1,000 in 2004. Second, Congress made the credit partially refundable so that families with no income tax liability would benefit. Under 2002 law, the refundable portion equaled 10 percent of earnings over \$10,750 (indexed for inflation). In 2004, that was increased to 15 percent of earnings over same \$10,750. Our illustrative family now benefits once earnings exceed \$10,750, compared with \$16,450 under 1998 law. Now the credit advantageously phases in just as the federal earned income credit reaches its maximum.

Changes in this credit raised the gain from work in range 2 by \$10 per \$100 between 1998 and 2002 and by another \$5 per \$100 between 2002 and 2004. This means that changes in the child credit, by themselves, accounted for more than the total increase in the gain from work within range 2 between 1998 and 2004. In range 3, the changes reduced the incremental gain from work by an average of \$8 per \$100 between 1998 and 2002 (because refundability shifted much of the benefit from range 3 into range 2), but raised the gain from work by \$12 per \$100 between 2002 and 2004.

Keeping the MFIP earnings disregard constant in 2002 prevented a slightly further rise in the gain to work for a household with earnings in the first two ranges. In the example in the previous section, a single parent receives the maximum grant of \$852 up to \$1,600 of earnings, and then the grant is reduced by \$64 for every additional \$100 earned. MFIP's 36 percent earnings disregard means that the MFIP grant falls by only \$64, rather than by the full \$100. MFIP integrates the TANF cash grant and food stamps and calculates the distribution to each by phasing out cash assistance first, followed by food assistance. In 1998, food assistance was completely phased out when earnings reached 120 percent of FPG. Although food assistance is indexed for inflation, cash assistance is not. To keep the exit point for food assistance at 120 percent of FPG, the Minnesota Legislature authorized adjustments to the earnings disregard. Under this provision and 2002 law, the earnings disregard would have risen from 36 percent to 40 percent by 2004. As a cost-cutting measure, actual 2004 law kept the earnings disregard at 36 percent, so the food assistance ends when earnings reach 112 percent of FPG. Within ranges 1 and 2, the 2002 law change would have increased the gain from work (in 2004) by \$4 per \$100; the reversal under 2004 law reduced it by \$4.

Figure 3
Net Income after Medical and Child Care Costs
Single parent with two children in Minnesota in 2004 under alternative laws
 (Vertical lines separate earnings ranges 1, 2, 3, and 4)

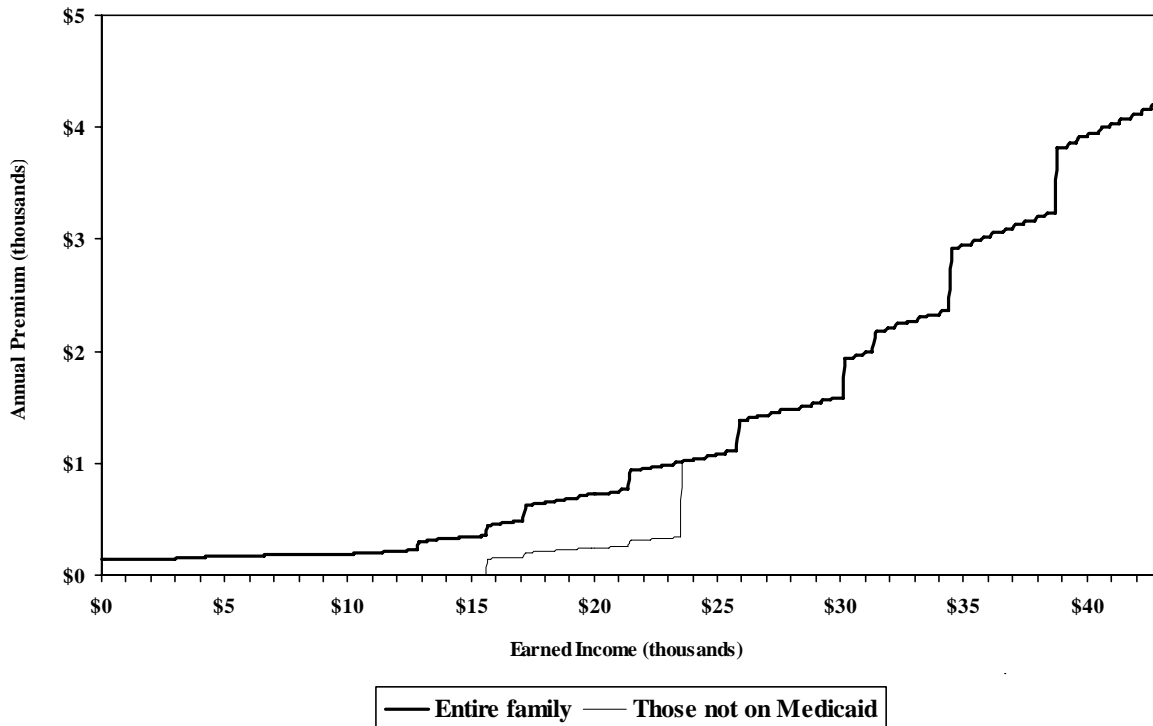


Cutbacks in publicly provided health insurance lower the gain to work for families in income ranges 2 through 4, except for those families on basic sliding fee who can offset these losses with more dollars in child care assistance: Between 1998 and 2002, substantive changes were made to both Medicaid and subsidized health insurance provided under MinnesotaCare.

(a) **Medicaid eligibility:** Medicaid eligibility rules for children ages 2 to 18 became more generous between 1998 and 2002, rising from 133 percent of FPG to 170 percent of FPG. Then, in the years following the 2002 budget deficit, eligibility limits were reduced to 150 percent of FPG. When Medicaid ends and MinnesotaCare takes over, there is a sudden drop in net income. For the example single parent with two children, the earnings at which the cliff occurs moved from \$20,900 under 1998 law up to \$26,700 under 2002 law and back to \$23,600 in 2004. The cliffs created when children exit Medicaid ranges from \$400 to \$850. Extending Medicaid eligibility to higher incomes increases the gain from work over that range by delaying the cliff, though the delay also increases the height of the cliff.

(b) **MinnesotaCare:** The family premiums for subsidized health insurance were increased in 2003. Premiums are set as a percent of income, in a series of steps rising from 1.5 percent of income to 9.8 percent of income (with a per-person minimum of \$48 per year). Figure 4 shows how annual premiums for this family varied with earnings in 2004. The relatively low average tax rates (with a maximum of 9.8 percent in 2004) disguise fairly high effective tax rates at the margin. Even when measured across \$5,000 increments (to smooth out the cliffs), marginal tax rates are highly variable and generally exceed 15 percent once the children are covered. Beyond the \$684 cliff where the children move from Medicaid to MinnesotaCare, the premium rises by an average of \$16.50 per additional \$100 of earnings, and there are four additional cliffs averaging \$440 in height. Before the 2003 changes, the maximum premium was 7.8 percent (rather than 9.8 percent). The 2003 law change increased premiums by between \$30 (at the FPG) to \$350 (at 275 percent of FPG, when eligibility ends).

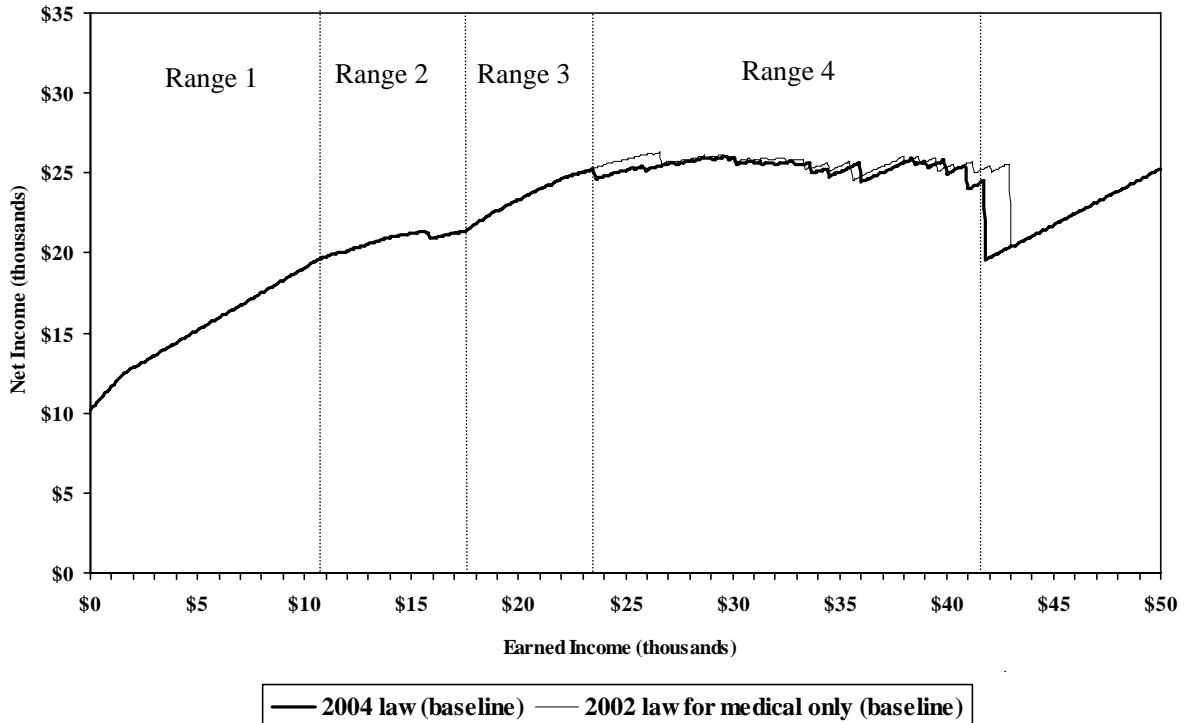
Figure 4
MinnesotaCare Premiums
Single parent with two children (2004)



The changes in Medicaid and MinnesotaCare rules between 2002 and 2004 raised medical costs for this family if earnings are between 100 percent and 275 percent of FPG. However, the higher insurance premiums generally result in lower child care costs, because the income measure used in BSF child care is income net of health insurance premiums. Because the child care subsidy schedules also change abruptly, with their own cliffs, the reduction in child care costs can exceed the increase in health insurance premiums, resulting in a net gain. For example, with \$35,600 in earnings, MinnesotaCare premiums rose by \$360 because of the law change, but that \$360 reduction in BSF child care income cut the family's payment for child care by \$1,644.

Figure 5 compares net income in 2004 (after subtracting both medical costs and child care costs) with what it would have been if 2002 law had been restored only for Medicaid and MinnesotaCare. The change in Medicaid eligibility rules clearly hurt the family, as did the earlier exit from MinnesotaCare. The higher MinnesotaCare premiums also hurt except where that change was offset by large and abrupt reductions in BSF child care costs.

Figure 5
2004 Income after Medical and Child Care Costs
Minnesota 2004 law compared to 2002 law for medical provisions only
 (Vertical lines separate earnings ranges 1, 2, 3, and 4)



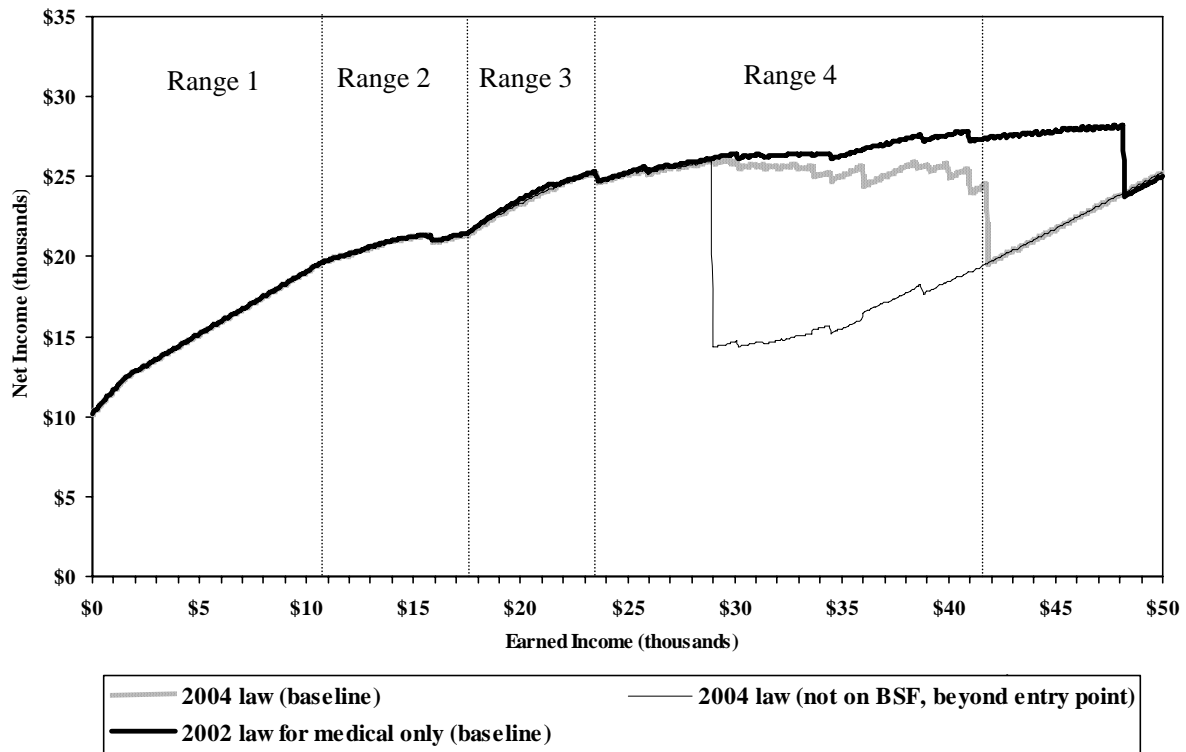
Cutbacks in Basic Sliding Fee lowered the gain to work for households with incomes in range 4: Minnesota’s child care subsidies for those with incomes above welfare levels were substantially reduced in 2003. The reduction took two forms. First, eligibility for BSF child care and parental payments for care are now both tied to FPG (with exit at 250 percent of FPG).⁴ Before the change, the exit level was defined as 75 percent of the state median household income. Under prior law, the 2004 exit point would have been higher—295 percent of FPG for a family of three—and parental fees would have been lower. Second, the entry point for BSF child care was reduced to 175 percent of FPG. Prior law made no distinction between entry and exit levels; both were at 295 percent of FPG.

The impact of these changes is shown on Figure 6. Those on BSF child care saw significant increases in their net child care costs, which rose by a total of \$70 when earnings equal 150 percent of FPG, \$700 at 200 percent of FPG, \$2,000 at 250 percent of FPG, and \$2,900 just before the cliff at the 2004 exit point. Over income range 4 (150 percent of FPG to 266 percent of FPG), a family on BSF child care now loses an average of \$4 per \$100 in added earnings. If 2002 child care laws were reenacted, the family would instead gain an average of \$12 per

⁴ This is BSF income as percent of poverty. Because BSF income allows subtraction of medical insurance costs, the actual exit point occurs at a higher income level.

\$100—a net change of \$16 per \$100. Also, the \$3,400 cliff at 266 percent of FPG would be delayed until earnings reached 305 percent of FPG.

Figure 6
2004 Income after Medical and Child Care Costs
Minnesota 2004 law compared to 2002 law for child care provisions only
 (Vertical lines separate earnings ranges 1, 2, 3, 4)

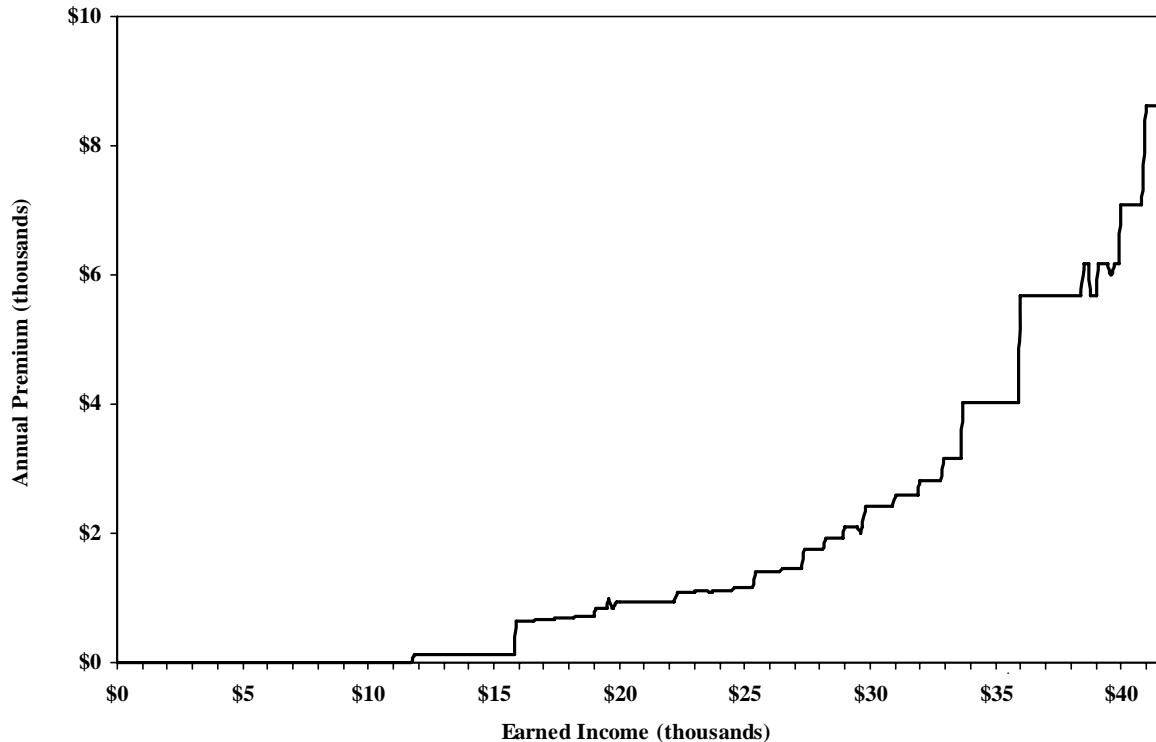


Potential losses because of the 2003 law are much larger for those not already on BSF child care whose incomes are above the 2004 entry point (175 percent of FPG). They are now income-ineligible for the program. Under the baseline assumptions, a family with earnings equal to 200 percent of FPG and unable to enroll in BSF child care in 2004 would be \$11,800 better off under 2002 law despite the expanded child care credit. This assumes, though, that they could have participated in that program under 2002 law and were not on a waiting list. From June 2003 to June 2004, the waiting list fell from 6,800 families to 1,706 families. To put those numbers in perspective, BSF participation averaged 12,540 families (and 21,328 children) per BSF month in 2003.

The jaggedness of the net income lines in Figure 6 is due to the BSF child care cost schedule. As shown in Figure 7, like that for MinnesotaCare, it has cliffs at points at which the payment-as-percent-of-income jumps. Payments rise from 3.85 percent of income just above the FPG to 22 percent when earnings equal 266 percent of FPG. The subsidy falls by \$8,500 over a range of \$26,000, at an average rate of \$33 per \$100 of earnings. Payments rise by an average of \$12 per

\$100 over the first third of that range and \$62 per \$100 over the last third, and there are six cliffs exceeding \$500.

Figure 7
BSF Child Care Copayments
Single parent with two children (2004)



Some suggest that a family might simply avoid range 4 and the high effective tax rates by finding a low-cost child care provider, or by finding someone in the informal market. It seems unlikely that the family will avoid all of range 4. At the beginning of the range, BSF copays sum to \$702 per year. At \$30,000, when net income begins to decline, the copay equals \$2,412. Median cost for full-time licensed family child care in Rochester was estimated at \$13,604. Moreover, parents cannot respond to higher copays by reducing the number of child care hours since the copay is determined solely by net income relative to the FPG.

The results change under several alternative assumptions.

Single parents with only one child do not substantively change the pattern of retained earnings. The pattern of effective tax rates is the same for a parent with one child (age 2) as for the baseline examples for the two-child family. The gain from work is a bit lower in range 1 (\$81 per \$100 earned) and a bit higher in ranges 2 (\$28), 3 (\$68), and 4 (\$-2); and the cliff when exiting BSF child care is smaller (because costs for one child are lower than for two).

Lower private sector health care and child care expenditures can reduce the cliff effect when MinnesotaCare and Basic Sliding Fee cut off, thereby raising the gain to work.

Health care costs: The baseline example assumes the family's number of doctor visits and drug prescriptions equal the national median for each family member's age and gender. The family selects the lowest-cost alternative between subsidized health insurance and several private insurance plans, where private insurance plans include premiums, a deductible of \$1,000 per person, coinsurance, and copays. When the parent is ineligible for subsidized insurance, the parent chooses the least expensive private insurance plan. Under the baseline assumptions, the transition to private health insurance occurs smoothly at \$41,000, before MinnesotaCare eligibility ends (at \$43,000). There is no cliff at the exit point.

If medical costs and health insurance are more expensive, net income would be the same as in the baseline until earnings exceed the point where the family exited MinnesotaCare under the baseline assumptions (at \$41,000), but exit from MinnesotaCare would be delayed as long as possible (to \$43,000), and medical costs would rise abruptly at that new exit point, creating a cliff. Higher private insurance costs would also extend eligibility for BSF child care because eligibility is based on income net of health insurance premiums. For example, if medical costs and insurance are 50 percent higher than assumed in the baseline example, the family would remain on MinnesotaCare and BSF child care until \$43,000, followed by an \$8,300 cliff (compared to the \$4,900 cliff in the baseline). In contrast, lower insurance costs would hasten the exit from MinnesotaCare (and BSF child care). In the extreme, if costs were zero, the gain to work would be \$2 per added \$100 of earnings higher in range 2, \$3 per \$100 higher in range 3, and \$11 per \$100 higher in range 4 (to the new BSF child care exit point at \$39,100), followed by a \$4,000 child care cliff (smaller than the baseline cliff of \$4,900).

Child care costs: The baseline example assumes two children in full-time licensed family child care at rates equal to the median in Rochester, Minnesota—a cost of \$13,600 per year. There are large geographical differences in these costs. For families on BSF child care, higher rates do not change the baseline results, but they do increase the height of the cliff at the exit point (\$43,000 in earnings). In Minneapolis, that cliff would exceed \$10,000 (compared to \$4,900 in Rochester). In the lowest-cost counties, child care costs are low enough that a family with two children in care would choose to exit BSF child care at incomes slightly below the maximum eligibility level (\$43,000) because the BSF family payments grow to exceed the full cost of care. In these lowest-cost counties, the transition from subsidized care would be smooth, with no cliff.

If a two-child family had only one child in child care, private child care costs are lower (though BSF parent payments are unaffected). In this case, costs for a 2-year-old child in Rochester would be low enough to ensure a smooth transition from subsidized care to the private market (with no cliff).

Pretax deferrals for child care costs may raise the income of parents especially during the phaseout of earned income credits. The baseline example assumes that the family takes full advantage of child tax credits, but does not have access to pretax accounts. In our baseline example (on BSF child care), paying child care expenses with pretax dollars (up to the maximum of \$5,000) is more beneficial when incomes exceed \$27,000. The benefit of a pretax account includes higher earned income tax credits over their phaseout range; dollars placed in pretax

accounts are not counted as income in calculating those credits. The extra value from use of pretax accounts rises to \$1,400 (when earnings are \$33,700), then falls to \$320 (at \$40,000) before rising again with higher tax rates. The use of pretax accounts raises the gain from work by \$20 per \$100 at incomes between \$27,000 and \$34,000, but then it reduces the gain from work by \$18 per \$100 as the gain from pretax accounts shrinks to its minimum at \$40,000. Over range 4 as a whole, the gain from work rises by an average of \$3 per \$100.

For families with incomes above the BSF child care entry point (\$29,000) who are not already on the program, child care costs and the advantage of a pretax account are larger, rising from \$1,500 to \$1,750 at \$33,700 before falling to match the pattern for BSF families.

Summary and Policy Implications

The tax and benefit structure that faces low-income families involves a complex system of program benefits and taxes. This publication illustrates how recent tax and expenditure program changes have changed the relationship between earnings and net income for a single parent in Minnesota. Work incentives have increased significantly over some ranges and have been reduced over other ranges. The expansion of the federal child credit and reduction in the lowest federal tax rate substantially increased the gain from work. In contrast, changes in direct state subsidies for medical and child care have substantially reduced the gain from work over some ranges and increased the height of the cliffs.

The report highlights the importance of subsidies for medical care and child care. These subsidies are large, and their phaseout over a relatively short range requires either high effective tax rates or large cliffs. With both child care costs and medical costs rising rapidly, the familiar tradeoffs will become more difficult. The optimal phaseout of these subsidies depends partly on the distribution of families by level of earnings and partly on the likely behavioral responses by parents. The present structure, though, with widely varying effective tax rates within identifiable ranges, is unlikely to be optimal. Both rationing of subsidies using waiting lists and setting different eligibility levels for entry and exit (as in BSF child care) create significant issues of horizontal inequity.

Knowledge of the present structure of work incentives for low- and moderate-income workers should be useful to policymakers, whether they are deciding where to target budget cuts or where to spend incremental dollars.

For more information about tax rates, visit the income tax area of our web site, www.house.mn/hrd/issinfo/tx_inc.htm.