The Reform’s Effect on Workers and Carriers

The 2001 reform of the Railroad Retirement program had a significant effect on the lives of rail workers and the finances of their employers. The labor and management negotiators had agreed to divide the gains of reform 50-50, with the workers getting higher benefits and the carriers a payroll tax cut. The carriers also agreed that they would pay higher taxes down the road, up to 22.1 percent of payroll, should the program’s finances unwind as the watermelon passed through the snake. The negotiators also agreed that should financial pressures on the program thereafter subside, the carriers’ tax could fall sharply, and the tax on workers could even vanish.

WORKERS AND THE 2001 REFORM

Labor took their portion of the gains of reform by increasing benefits in three different ways. Beginning January 1, 2002, the program 1) vested workers with rights to benefits after fewer years of service, 2) increased benefits paid to survivors, and 3) allowed workers with 30 years of service to retire on full benefits at 60 rather than 62.

Prior to the 2001 reform, rail workers earned a vested right to Railroad Retirement benefits after 10 years of service—only after 10 years of service would they receive any benefits from the program. Ten-year vesting was one of three minimum vesting rules ERISA required in private sector plans, and it became the vesting rule most private plans had adopted. Congress changed that rule to require vesting after 5 years of service in 1986. So to keep abreast of private-sector practice, union negotiators included five-year vesting in their package of benefit enhancements.

Five-year vesting affected very few workers. The great majority of rail workers either have fewer than 5 years of service or more than
10. In 2012, the Railroad Retirement program granted pensions to only 100 workers with 5–10 years of service (Railroad Retirement Board 2014, Table B10). Their pensions were also quite small. The Railroad Retirement benefit formula sets pensions at (years of service) × (0.7 percent of average covered earnings over the last five years of rail employment). Thus, the pensions of those 100 workers were 3.5–7.0 percent of their average earnings over their last five years of service. Many of these workers had left rail employment a quarter century or more prior to retirement, and the benefit formula did not adjust their earnings to reflect the subsequent rise in prices or wages. Inflation and wage growth thus cut the value of their Railroad Retirement pensions roughly in half, to about 3 percent or less of their preretirement earnings.5

The 2001 increase in survivor benefits was more significant. Survivors had formerly received a continuation of their Railroad Retirement spousal benefit, equal to about half their spouse’s benefit. Survivors now get their deceased spouse’s benefit. This increment, however, was reduced dollar for dollar by the cost-of-living increases in both the survivor Railroad Retirement spousal benefit and typically much larger Social Security survivor benefit—until the increment disappeared. While all new widow(er)s and many existing widow(er)s got an increase in benefits, that increase would wither away, depending on the rate of inflation, in 10–15 years.

By far the most significant increase in benefits introduced by the 2001 reform was the ability of workers with 30 years of service to retire on full benefits at age 60 rather than 62. About 75 percent of rail workers aged 60 had 30 years of service, and the reform gave those who chose to retire an additional two years of “full” Social Security—equivalent Tier I and Railroad Retirement Tier II benefits. If married—and about 70 percent of rail workers that age were—the couple was also entitled to a spousal benefit equal to half the worker’s “full” Tier I and Tier II benefits (Railroad Retirement Board 2014, Table S-43).

The reform created a powerful incentive for workers aged 60 with 30 or more years of service to retire. Railroad Retirement pro-
vided essentially all, or nearly all, of the income they would need. A standard rule of thumb says retirees need about 80 percent of their preretirement earnings to maintain their standard of living—and less if they have paid off the mortgage or have children they no longer support (Palmer 2008). A “full” Railroad Retirement benefit replaced about 80 percent of the preretirement earnings of a married worker and about 55 percent for a single worker. So a “full” benefit provided a sufficient retirement income for workers with a nonworking spouse or a spouse with relatively low earnings, and an income close to sufficient for those without a spouse. Also encouraging the retirement of workers aged 60 with 30 years of service, their pensions would only increase modestly, only about 2–3 percent, for each year they delayed retirement.

Workers with 30 years of service who retired at 60 thus got pensions about 4–6 percent smaller than what they would get at 62. This was less than the additional cost to the Railroad Retirement program of providing these somewhat smaller benefits earlier and for a longer period of time, and for forgoing two years’ employer and employee payroll taxes. This additional cost for 60/30 was the primary way that labor took its portion of the gains of reform. And the availability of “full” pension benefits at age 60, albeit somewhat smaller than the “full” benefits available at older ages, proved hard to resist. Among rail workers with 30 or more years of service in 2004–2006, 62 percent of those aged 60 and 49 percent of those aged 61 retired. The retirement rates for such workers in 1998–2001, just prior to the 2001 reform, were 11 percent for those aged 60 and 10 percent for those aged 61 (Railroad Retirement Board 2001; 2007, Table S-30).

THE CARRIERS AND THE 2001 REFORM

The 2001 reforms had two immediate effects on the carriers: the stepped-up retirements cut railroad employment, and the payroll tax cut reduced pension expenditures. The tax cut by far had the greater effect.
The 2001 reforms cut railroad employment by about 4,000 workers. Workforce reductions had been major contributors to carrier profitability since the end of the Second World War. Key drivers of carrier profitability continued to economize on labor, such as the use of larger cars and longer trains and the shift to intermodal freight traffic (Martland 2012). Railroad employment fell by 9,000 workers from 2001 to 2002, when 60/30 was introduced—more than the increase in retirements attributable to the 2001 reform—and by another 4,000 in 2003. Railroad employment, however, then slowly began to rise. Even after a sharp decline in the Great Recession, the carriers employed 2,000 more workers in 2011 than they had in 2004. This suggests that the employment reduction attributable to the 2001 reform at best had just a minor effect on profitability.

The employment reduction attributable to the 2001 reform was a reduction in the number of older workers, aged 60 and 61, that the carriers employed. The carriers had introduced mandatory retirement on pension at the turn of the twentieth century precisely to terminate the employment of older workers whose productivity had declined. They initially set the mandatory retirement age at 70, which was often lowered to 65. But given the dramatic gains in worker health and education, and reductions in many of the physical demands of railroad work, it is far from clear that workers aged 60 and 61 are much less productive, if less productive at all, than younger workers. This again suggests that the retirements attributable to the 2001 reform at best had a minor effect on profitability.

The cut in the carriers’ payroll tax, by contrast, had a significant effect. The 2001 legislation and the ratchet cut the carrier’s payroll tax from the prereform 16.1 percent of payroll in 2001, down in steps to 12.1 percent by 2007. The ratchet then kept the carriers’ tax that low to 2013, when it pushed it up to 12.6 percent. The carriers’ tax rate is expected to return to 13.1 percent of payroll in 2015. It would then be at the carriers’ benchmark rate in the 2001 legislation, 3 percentage points below their prereform 16.1 percent levy (Figure 5.1).
Over the 10 years from 2002, when the reform began to cut their tax rate, to 2011, the carriers paid $17.5 billion in Railroad Retirement payroll taxes. Assuming no change in payrolls, they would have paid an additional $4.5 billion had their tax rate remained 16.1 percent—and over the last 5 of those years, about an additional $600 million a year (Figure 5.2). Assuming a 35 percent marginal tax rate, the 2001 reforms added $3 billion to the carriers’ after-tax earnings over this 10-year period, and about $400 million a year over the last 5 of those years.

These tax savings made a reasonably significant contribution to carrier profits. From 1996 through 2004, U.S. Class I Railroads, which earn the bulk of industry profits, earned about $4 billion a year or less. Class I profits then increased rapidly, reaching $12.1 billion in 2012. Figure 5.3 shows the estimated contribution of tax savings to the profits of Class I Railroads. The contribution to profits at all railroads is probably quite similar.
The continuation of carrier tax cuts through the Great Recession, including the reductions produced by the ratchet in 2005 and 2006, stand in stark contrast to the spike in mandatory employer defined benefit pension contributions when the economy turns down. Economic downturns reduce the value of pension fund assets, and the value of assets in the NRRIT fell nearly 20 percent in 2008 because of the decline in equity prices. Employer defined benefit plans typically measure the adequacy of their assets against the present value of future obligations, a yardstick highly sensitive to current interest rates. As interest rates fell sharply in the Great Recession, the present value of Railroad Retirement obligations jumped dramatically, producing a significant drop in the program’s funded ratio—the ratio of assets to the present value of plan obligations. Had Railroad Retirement tax rates been pegged to this funded ratio, carrier taxes would have moved sharply higher. But Railroad Retirement measures the

Figure 5.2 Estimated Contribution of Payroll Tax Cut to Carrier Profits, 2002–2011 ($ millions)

SOURCE: Author’s calculations, based on data from Railroad Retirement Board (2014, Statistical Table D1).
adequacy of trust fund assets against the far more stable yardstick of annual benefit outlays and sets its tax rate based on the trailing 10-year average of that ratio. After the crash of 2008, the ratio of Railroad Retirement assets to outlays did fall, though not nearly as far as the ratio of assets to the present value of future Railroad Retirement obligations. As the trailing 10-year average fell slowly, carrier tax rates were stable and below the program’s benchmark 13.1 percent rate throughout the Great Recession.

When downturns depress the funded ratios of employer defined benefit pension plans, the government requires employers to increase their contributions to quickly restore the plans’ ability to pay promised benefits. To the extent the carriers retained and invested their payroll tax savings, those tax cuts also shored up Railroad Retirement, as the

![Figure 5.3 Estimated Contribution of Payroll Tax Cut to Carrier Profits (%), 2004–2012](chart.png)

SOURCE: Author’s calculations. Tax saving based on data from Railroad Retirement Board (2014, Table D1), assuming the share of Class I railroads in Tier II compensation is the same as their share of Tier I compensation; profit estimates based on data from Surface Transportation Board (2014).
program has a contingent claim on the carriers. Should the Railroad Retirement’s finances weaken, as indicated by a decline in the trailing 10-year average ratio of assets to outlays, the ratchet increases the carriers’ tax rate. Although not legally specified, it was also generally understood that the carriers would be required to increase their contributions beyond what the ratchet demanded, if need be, to keep the program afloat.

It is impossible to say with any precision how much of the tax savings the carriers retained and invested, as opposed to paying out as dividends. This is especially so as the tax savings became a relatively small contributor to railroad earnings. Nevertheless, the carriers made increasingly large investments as their earnings rose, with their investments rising roughly dollar for dollar with the increase in earnings (Figure 5.4). The carriers have internal hurdle rates—expected rates of return on investment projects—well above the expected

**Figure 5.4 Class I Railroad Profits and Investments, 2003–2012**

($ billions)

![Graph showing Class I Railroad Profits and Investments, 2003–2012](image-url)

**SOURCE:** Association of American Railroads (2013a,b).
return on financial assets. The Great Recession had also cut the cost of capital and investment goods and services, increasing the attractiveness of long-term infrastructure investments in expanding businesses such as intermodal traffic and Western coal. The portion of the tax savings that the carriers retained and invested thus probably earned much higher returns than had it been invested in financial assets by the NRRIT. There is no guarantee that the value this investment created will be there when needed by the Railroad Retirement program. But it is fair to say that in addition to strengthening the carriers, the tax savings to some degree also strengthened Railroad Retirement. The tax cuts were not simply value lost by the program.

THE CARRIERS AND THE 2001 REFORM GOING FORWARD

The carriers’ tax is rising back to 13.1 percent of payroll, the benchmark set in the 2001 reform, and is projected to rise still further. The carriers’ taxes, and gains from the 2001 reform, thus depend on how well the program negotiates the upcoming demographic transition.

The Railroad Retirement program was initially designed as a pay-as-you-go plan, with a trust fund to cushion transient shocks. The ratchet was designed to raise taxes and beef up the trust fund when the cushion got too thin. In any pay-as-you-go plan, the program’s finances largely depend on the ratio of retirees receiving benefits to tax-paying workers. That ratio currently stands at 2.5 beneficiaries for each active worker, a legacy from the days when the railroads employed many more workers than they currently do. The ratio of assets to outlays is unlikely to rise, and tax rates are unlikely to fall, until that ratio of beneficiaries to workers falls below two.

The number of Railroad Retirement beneficiaries going forward is reasonably predictable. The future course of railroad employment, on the other hand, has historically been hard to predict. The triennial actuarial valuations of the Railroad Retirement program thus project the program’s finances using three different employment trajec-
tories. The trajectories in the most recent 25th Actuarial Valuation, released in June 2012, were a mild decline, a steeper decline, and a much steeper decline over the first half of the century, with railroad employment stabilizing thereafter (Figure 5.5).

The valuation’s optimistic projection, based on a mild decline in railroad employment, projects the account benefits ratio declining to about three times annual outlays by 2025 but then rising steadily over the next three decades, as the ratio of beneficiaries to workers falls below 2, and stabilizing at about eight times annual outlays a bit after midcentury (Figure 5.6, Panel A).

The valuation’s intermediate projection, based on a steeper decline in railroad employment, has the account benefits ratio falling below three in 2020, to about two times annual outlays from 2026 to 2029, then rising above three times outlays through midcentury. The decline in railroad employment is then projected to end and ratio of

Figure 5.5  Railroad Employment Projections, 25th Actuarial Valuation

![Graph showing railroad employment projections]

beneficiaries to workers falls below 2. The ratio of assets to outlays again rises steadily over the next three decades and stabilizes at a bit more than eight times annual outlays toward the end of the century (Figure 5.6, Panel B).

The valuation’s pessimistic projection, based on much steeper employment decline that was widely viewed as highly unlikely, shows a negative account benefits ratio in 2035 and every year thereafter: it shows the trust fund exhausted in 2035 and the program incurring ever-mounting debts to pay promised benefits (Figure 5.6, Panel C). The report thus cautiously concludes that “barring a sudden, unanticipated, large drop in railroad employment or substantial investment losses, the railroad retirement system will experience no cash flow problems during the next 23 years”—to 2035 (25th Actuarial Valuation, p. 2).

The system was not expected to experience cash flow problems over those 23 years because the ratchet would raise carriers’ tax rates in response to declines in the trailing 10-year average of the ratio of assets to outlays. Should the optimistic projection prove accurate, the ratchet would push the carriers’ tax rate above the 2001 benchmark, 13.1 percent, from 2022 to 2038, as that average ratio fell below four times benefit outlays. But the carriers’ tax rate would never top the prereform 16.1 percent. The 2001 reform thus would continue to have a positive effect on carrier earnings as the watermelon passed through the snake (Railroad Retirement Board 2014, p. 16).

Should the intermediate projection prove accurate, the ratchet would push carriers’ taxes above the prereform 16.1 percent rate from 2027 to 2039, as the 10-year average ratio fell below three times annual outlays. The carriers’ tax rates over that 13-year period would be 4.2 percentage points higher, on average, than their prereform rate. But over the 25 years from 2002 to 2026, when the carriers employed many more workers, their tax rates would, on average, be 3.6 percentage points less. So, even should railroad employment follow the intermediate trajectory, reform would still leave the carriers better off. To the extent they retained and invested their tax savings over the first
Figure 5.6  Projected Current and Trailing 10-Year Average Ratio of Railroad Retirement Assets to Outlays

Panel A: Optimistic Employment Projection

Panel B: Intermediate Employment Projection
25 years of reform, and the returns on those investments equaled or exceeded their internal investment hurdle rates, the carriers would be much better off and be in a stronger position to pay the higher tax rates projected from 2027 to 2039 (Railroad Retirement Board 2014, p. 17).

Should the pessimistic projection prove accurate, the ratchet would push the carriers’ tax rate above the prereform 16.1 percent in 2025, and to the maximum 22.1 percent 2 years later. But these increases would not keep the system afloat. If nothing else were done, the trust fund would be empty in 2035, 23 years after the projection was released. The carriers would then be expected to shore up the program, or at least be the primary contributor. Such a sharp decline in railroad employment, however, would also overwhelm the prereform system. In the 22nd Actuarial Valuation, the last conducted prior to the 2001 reform, the pessimistic projection depleted the trust fund.

Figure 5.6 (continued)

Panel C: Pessimistic Employment Projection

fund even more quickly—in 21 years after the report was released. The carriers could be worse off as a result of the 2001 reform, especially if the program retained 60/30. But as workers would probably not retain 60/30, the carriers would probably not be significantly worse off (Railroad Retirement Board 2003, p. 20; 2014, p. 18).

The future trajectory of railroad employment is the only risk factor addressed in Railroad Retirement’s triennial actuarial valuations. But the 2001 reform also exposed the program to new risk factors. By cutting taxes and increasing benefits, it made the program dependent, for at least a quarter century, on large cash transfers from the NRRIT. By allowing the investment of Railroad Retirement assets in equities, it then exposed the trust fund and its ability to make transfers to significant financial market risks.

A key financial risk is that the return on trust fund assets will be less than expected. The most recent actuarial valuation assumes a reasonable 7 percent nominal return—4.2 percent above its assumed 2.8 percent inflation rate. More troublesome is the risk of sharp fluctuations in asset values. The ratchet was designed to respond slowly to financial shocks. The market crash of 2008, admittedly a highly unusual event, illustrates how quickly the program’s finances could sour without any tax response. The program’s finances benefited during the post-crash period from unexpectedly strong railroad employment, which maintained payroll tax receipts and reduced demands for trust fund transfers. As economic downturns typically reduce both employment and asset values, it seems reasonable to expect employment shocks to amplify, not dampen, future financial shocks.

Projections in the most recent actuarial valuation based on the intermediate employment trajectory had trust fund assets at two to three times annual outlays from 2020 to 2035, and only rising above four times annual outlays after 2060. Assets equal to two to four times outlays is a very comfortable cushion for a national pay-as-you-go Social Security program, with assets invested in Treasuries and benefits covered by payroll tax receipts. It is not such a comfortable cushion for the far less stable Railroad Retirement program, with a trust
fund invested in risky assets, tax rates at or close to the maximum defined by the ratchet, and large trust fund transfers needed to pay benefits (Railroad Retirement Board 2014, p. 17).

The program’s vulnerability to sharp declines in asset values in the intermediate projection peaked early on. In 2020, when the ratio of assets to outlays was projected to fall below three, tax receipts were projected to cover less than 70 percent of benefit payments. But the ratchet raised the carriers’ tax rate in response to the declining ratio of assets to outlays, and the need for trust fund transfers subsided. Tax receipts were actually projected to exceed benefit outlays from 2030 to 2036, eliminating the need for trust fund transfers and raising the value of trust fund assets above three times annual outlays. The ratchet then reduced the carriers’ tax rate, and tax receipts again fell below benefit outlays. The program would need trust fund transfers to cover about 20 percent of benefit payments, and assets would remain below three and a half times annual outlays. As illustrated by the effects of the 2008 crash, Railroad Retirement remained vulnerable to a sharp decline in asset values. This vulnerability continued until the decline in payroll employment slowed. When the employment decline ceased and the ratio of beneficiaries to workers fell below two, the program’s finances rapidly improved. Assets in the trust fund rose quickly, even though the ratchet was reducing payroll tax rates and trust fund transfers had to cover an increasingly large share of benefit payments. With trust fund assets rising above eight times outlays after 2080, Railroad Retirement’s ability to pay benefits should no longer be vulnerable to sharp but transient declines in asset values (Figure 5.7).

The ability of the Railroad Retirement program to pay promised benefits does not depend solely on the ratchet’s ability to keep the program on track. It depends on the ratchet’s ability to give Congress (and the industry) enough time to respond to shocks that overwhelm the ability of its sluggish tax adjustments to assure benefit payments. Should trust fund assets fall below three times annual outlays while the program requires significant transfers to pay benefits, Congress
(and the industry) would likely develop contingency plans to shore up the program.

The 2001 reform was largely developed assuming railroad employment would follow the optimistic trajectory, as that trajectory had been the most accurate projection of industry employment. Since the most recent actuarial valuation, railroad employment has in fact been stronger, and the program’s ratio of assets to outlays higher than that valuation’s optimistic projections. Railroad employment in March 2012 was 234,000—5,000 more than the optimistic projection’s 229,000. Assets in the Railroad Retirement Trust Fund were 4.96 times annual outlays at year-end 2012, significantly higher than the 4.75 times annual outlays in the optimistic projection (Railroad Retirement Board 2014; NRRIT 2012). Railroad Retirement has a long way to go before the watermelon has passed through the snake.
But these early indications are encouraging, and they support the view that the current program will survive the watermelon with its current design intact, providing workers enhanced benefits and the carriers lower tax rates.

THE FUTURE

Railroad Retirement seems likely to negotiate the upcoming demographic transition with its current design intact. The program’s finances should then significantly improve, either by the middle of the century under the optimistic projection or toward the end of the century under the intermediate projection. Both projections have trust fund assets then stabilizing at a bit more than eight times benefit outlays and taxes falling to 12 percent of payroll. The carriers would then be subject to a 10.1 percent payroll tax and the workers a 1.9 percent tax. These taxes would cover about 75 percent of benefit outlays, and transfers from the trust fund, now between 8 and 8.5 times annual outlays, would cover the remaining 25 percent.

The program’s finances would then seem reasonably stable. It would have an adequate trust fund balance to cushion shocks, with the ratchet having enough time, range, and responsiveness to adjust tax rates to keep the program on track. Should the trailing 10-year average ratio of assets to outlays fall below 8, the ratchet would raise the payroll tax from 12 to 14 percent. With taxes covering 75 percent of benefit outlays, a 2-percentage-point change in the payroll tax rate—a 17 percent swing—would have a dramatic effect on the need for trust fund transfers. Assuming 90 percent of tax receipts come from the payroll tax, with the remainder from income taxes on benefits returned to the program, a 2-percentage-point increase in the payroll tax would cut the required trust fund transfer over 40 percent. The required trust fund transfer would then be less than 2 percent of a trust fund balance equal to just 7 time benefit outlays. This in time should be sufficient to raise the value of trust fund assets above 8 times annual outlays and lower the payroll tax back to 12 percent.
Nor should there be strong pressures to raise benefits or lower taxes. The carriers’ 10.1 percent tax would be somewhat higher than the employers’ traditional 7–8 percent of payroll cost for a defined benefit pension plan, so labor could expect the carriers to resist demands for further benefit enhancements. The tax, however, would not be so high that the carriers could expect labor to accept benefit reductions to lower the carriers’ 10.1 percent levy.

There could be pressure, however, to move Railroad Retirement from a pay-as-you-go to a prefunded program. With trust fund assets exceeding eight times annual outlays, responsible for providing a quarter of annual benefit outlays, the program in fact would no longer be funded on a pay-as-you go basis. Shifting to prefunding, with program rules adjusting taxes and/or benefits to assure sufficient assets in the trust fund to pay promised pensions, would probably not require major tax increases or benefit cuts. Railroad Retirement at some point will need to make this transition. While the railroads will probably be a viable industry for another 100 years, it probably will not for 1,000 years. Unless the program shifts to a prefunded design, at some point it could fail and Railroad Retirement pensions would not be paid.

The long history of railroad pensions is full of change as well as continuity. Pension programs are inherently long-term arrangements, with future obligations dependent on events in the past. They hold claims created during an employee’s working years for income many decades in the future. Those claims have rarely been fulfilled in the same institutional setup in which they were granted. The 2001 reforms thus will probably not be the last restructuring of the Railroad Retirement program.
Notes

1. If prices on average rise 2 percent a year and wages 1 percent above inflation, the value of a benefit earned 25 years in the past, as a replacement of preretirement earnings, would be cut over 50 percent.

2. Rail workers also received retiree medical benefits, which reduced the retirement income needed to maintain their standard of living and also covered the risk of needing to pay for rising medical expenses as they aged.

3. In 2012, the average monthly pension for workers retiring early on “full” benefits was about $3,600 a month: sum of Tier I and Tier II benefits for workers retiring before their “Full Retirement Age” (Railroad Retirement Board 2014, Table B9). Workers with 30 or more years of service then earned an estimated $6,600 a month: average Tier I covered compensation in 2010 was $6,150 (Railroad Retirement Board 2010, Table S-41); assuming nominal wage growth of 3.5 percent per annum, average Tier I covered compensation in 2012 would be $6,600 a month (while Tier I covered compensation excludes compensation above the Social Security wage cap, the great majority of rail workers earned less than the Social Security wage cap). Assuming a spousal benefit equal to half the worker’s benefit, or $1,800, couples would get $5,400 a month, over 80 percent of the worker’s preretirement earnings ($5,400/$6,600); and single workers would get 55 percent ($3,600/$6,600).

4. Tier I Social Security–equivalent benefits are based on the average of the worker’s highest 35 years of covered earnings—earnings on which the worker paid either Railroad Retirement or Social Security payroll taxes—with earnings prior to age 60 indexed by the growth of national average wages. For workers with 35 years of covered earnings, the additional year of earnings would have a negligible effect on that average. For workers with less than 35 years of covered earnings, it could increase that 35-year average perhaps 3 percent. But due to Social Security’s progressive benefit formula, even a 3 percent increase in average earnings would raise the benefit of a relatively high-paid rail worker less than 1.5 percent.

Tier II benefits would increase more, about 4–5 percent. Tier II benefits are 0.7 percent of final 5-year average earnings for each year of service. The additional year would increase the pensions of workers with 30 years of service 3.3 percent (1/30), and 2.9 percent for a worker with 35 years of service (1/35); as Railroad Retirement pensions are indexed to inflation, benefits would also rise by the increase in final 5-year average earnings above inflation, typically 1–2 percent.
For workers with 30 years of service who retire early, Tier I benefits are about 50 percent greater than Tier II benefits: the average Tier I benefit for such workers in 2012 was $2,160 a month, and the average Tier II benefit was $1,455 (Railroad Retirement Board 2014, Table B9). Delaying retirement would thus increase the pensions of such workers about 2–3 percent.

5. In 2012, 5,213 workers aged 60 or 61 retired on full benefits (Railroad Retirement Board 2014, Table B10). Of workers aged 60–61 who retired on full benefits over the three-year period 2004–2006, 74 percent were aged 60 and 26 percent were aged 61 (Railroad Retirement Board 2009, Table S-30). Applying those percentages gives an estimated 3,834 workers aged 60 and 1,379 workers aged 61 retiring on full benefits in 2012. Dividing those figures by the retirement rates derived from Table S-30 in the 2012 25th Actuarial Valuation (which are essentially the same as those reported in the text derived from Railroad Retirement Board [2009]) gives 6,280 workers aged 60 and 2,865 workers aged 61 with 30 years of service in 2012. Applying the pre-reform retirement rates of 10 percent and 11 percent, respectively, for workers aged 60 and 61 with 30 years of service, gives an estimated 691 retirements by workers aged 60 and 286 by workers aged 61, or an estimated total of 977 retirements by workers aged 60 or 61 with 30 years of service had the 2001 reforms not been enacted. This is 4,236 less than the 5,213 such workers who retired in 2012.