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Feasibility Study: Illinois Secure Choice

March 2017

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Executive Summary

Over 2 million workers in Illinois do not have access to a plan such as a 401(k), because their employers do not offer one. The Illinois Secure Choice Program ("Secure Choice") will require employers with 25 or more employees to automatically enroll their workers into a state-sponsored program of Individual Retirement Accounts ("auto-IRAs"), expanding access to some 1.2 million Illinois workers.

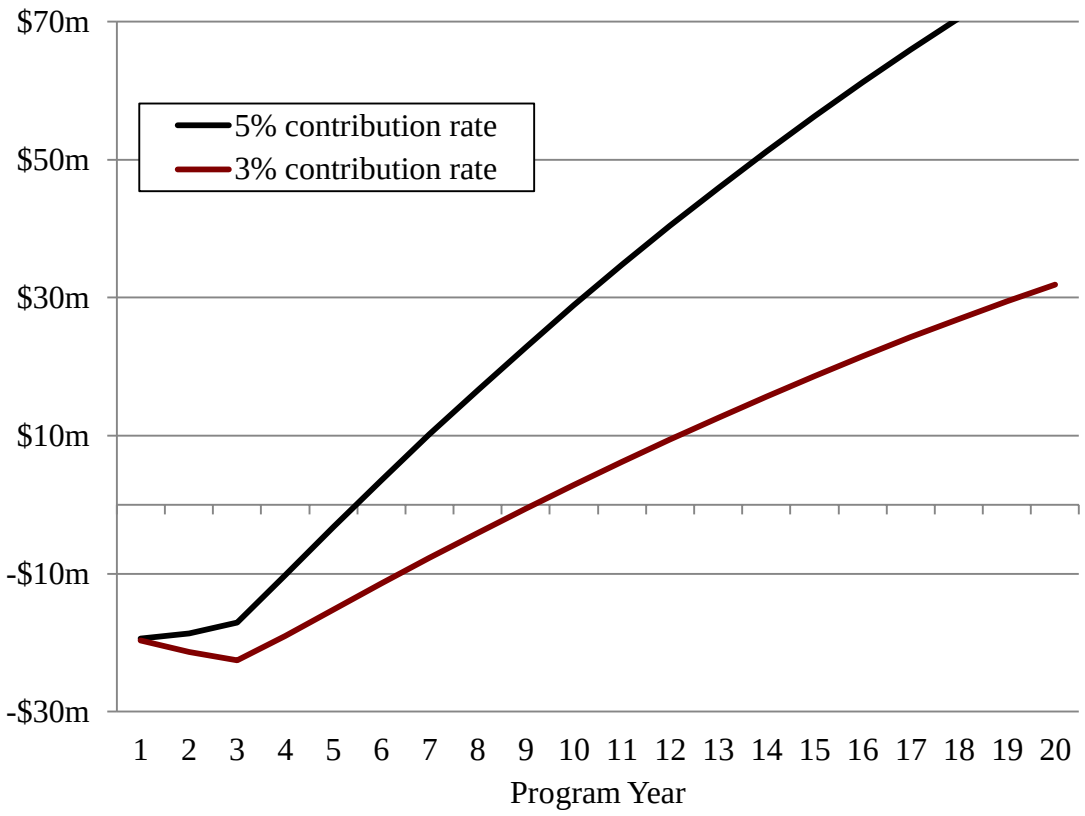
Secure Choice – which will be administered by private sector companies with state oversight – faces one significant challenge: the program must pay for itself. Addressing this challenge is difficult because, in the beginning, program costs will rise more rapidly than revenues. Costs are driven by the number of accounts, and the program is expected to enroll many participants in the initial years. In contrast, revenues are driven by assets under management, which are initially low since employee contributions and investment returns take time to accumulate. Overcoming this challenge will be especially difficult in Illinois because the Secure Choice statute sets a relatively low default contribution rate of 3 percent and a fee-cap of 0.75 percent of asset under management (75 basis points).

As a result, this study projects that it will take 10 years for Secure Choice to have enough revenue from its fees to pay for ongoing administrative costs, and another eight years for operating profits to cover losses incurred during those first 10 years. In other words, under current law the program will need 18 years to be profitable to a service provider. Since Illinois law sets a 10-year contract limit, service providers may be less likely to bid for recordkeeping responsibilities. At the same time, Secure Choice has the advantage of scale and should clear $1 billion in assets – a benchmark used by other states to determine program feasibility – in less than three years. And this report will also show that Secure Choice will become more attractive to potential plan administrators if it has a higher default contribution rate.

To illustrate how finances depend on the contribution rate, Figure 1 shows the number of years before annual revenue from the program covers annual costs under two default contribution rates: 1) 3 percent, per current statute; and 2) 5 percent, which Oregon (another state implementing an auto-IRA) is using. By increasing the default contribution rate from 3 percent to 5 percent,

Secure Choice can "break even" and begin paying off its initial losses four years earlier – without significantly lowering participation in the program.[1]

Figure 1. *Difference between Ongoing Revenue and Costs of Secure Choice, in Millions*



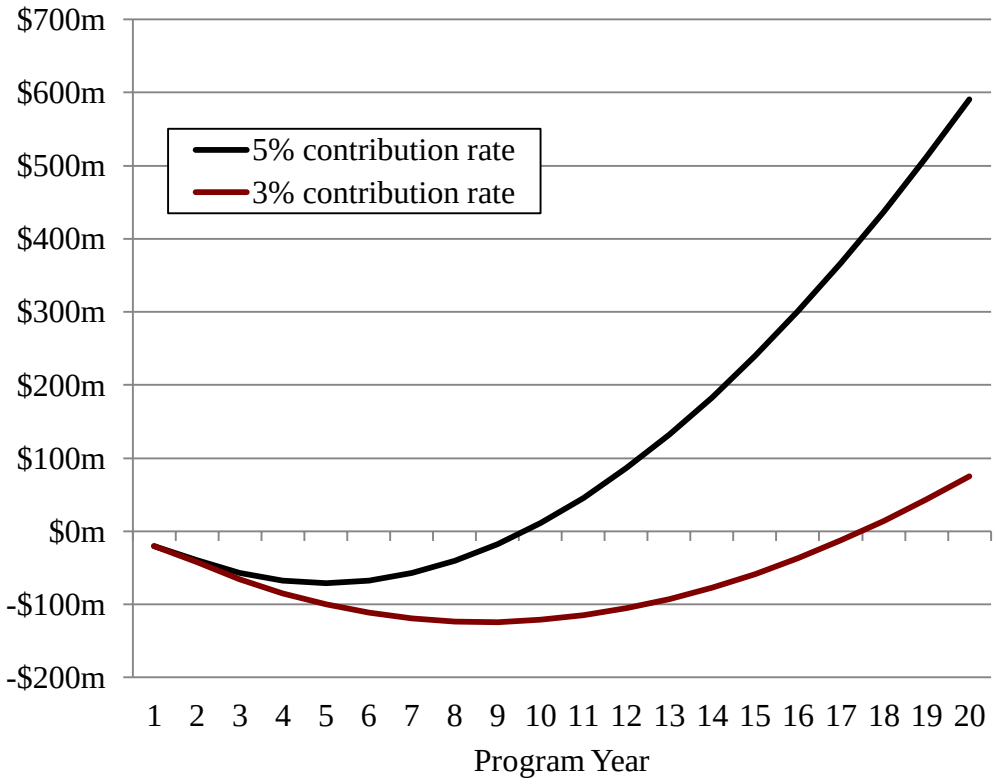
Source: Center for Retirement Research at Boston College (CRR) calculations.

The four-year head start in achieving operating profits with a 5-percent default contribution rate also results in an eight-year reduction in the time it takes for the program to pay off start-up costs and reduces the program's cumulative losses. Figure 2 illustrates the cumulative deficit from both the ongoing costs and the fixed start-up costs under the two contribution rates. This deficit is one measure of the risk a private sector firm may perceive when bidding on the program. With a 5-percent default contribution, this risk is considerably less at $71 million, compared to $124 under a 3-percent default contribution. The figure also shows that with a 5-percent default rate the program

[1] A number of studies have shown that workers automatically enrolled into retirement plans with contribution rates between 3 percent and 6 percent participate at almost identical rates (e.g. Choi and Madrian, 2002, Vanguard, 2012, Belbase and Sanzenbacher, 2016, etc.)

becomes profitable in Year 10, versus Year 18 with a 3-percent default. In other words, Secure Choice can be profitable within the 10 years required if the default contribution rate is increased. While the results of this analysis do not automatically mean that the state will not get interest from providers under the current default rate of 3 percent – the sheer size of the Secure Choice program may attract bidders who think they can keep costs lower than assumed in this study – it does suggest that the program's attractiveness to potential service providers can be improved significantly with a relatively simple change that is unlikely to harm participation (and likely to boost retirement security).

Figure 2. *Running Secure Choice Net Profits, in Millions*



Source: CRR calculations.

Feasibility Study

Introduction

Very few workers save for retirement unless their employer offers them a retirement plan, typically a 401(k). In Illinois, employers for more than 2 million workers do not offer such a retirement plan. The Illinois Secure Choice Program ("Secure Choice") will require certain employers without plans to automatically enroll their workers in a state-sponsored program of Individual Retirement Accounts ("auto-IRAs"), expanding access to approximately 1.2 million Illinois workers. Secure Choice – which will be administered by private sector companies with state oversight – faces one significant challenge: the program must pay for itself to be attractive to private sector administrators. Addressing this challenge is difficult because, in the beginning, program costs will rise more rapidly than revenues. Costs are driven by the number of accounts, and the program is expected to enroll many participants in the initial years. In contrast, revenues are driven by assets under management, which are initially low as employee contributions and investment returns take time to accumulate. Because the maximum length of such a contract in Illinois is 10 years, and because the state cannot take on any liability associated with the program, having a program that becomes profitable within a decade will be important to attract bids from potential service providers.

To evaluate how attractive Secure Choice will be to private sector providers, this study will use two metrics. The first metric is the time it will take for the program to become cash positive or "self-sufficient," i.e., for the revenue generated by account balances from the fee to exceed the cost of maintaining the accounts. The second metric is the time needed for the program to become net positive, i.e., to generate enough revenue to pay back the cost of starting up the program, including the initial losses. Both metrics can be influenced by parameters within the state's control, such as the default contribution rate, and parameters outside of the state's control, such as the costs a provider anticipates incurring to run the program or the behavior of participants regarding withdrawals.

The goal of this study is to present how these two metrics look under the current parameters of the program – a default contribution rate of 3 percent and a fee on assets of 75 basis points – as well as under alternate scenarios. In particular, the study emphasizes how using a 5-percent default contribution rate would improve the economics of Secure Choice without significantly reducing participation in the program.

This study's financial projections rely on a number of assumptions about program design. For example, the projections assume that account holders' money is invested in a blended target date fund and that employers who offer no retirement plan are required to automatically enroll their employees in a Roth IRA in a staggered manner: in Year 1, employers with 100+ employees will be enrolled; in Year 2, employers with 50+ employees; and in Year 3, the remaining employers.[2]

The study also makes assumptions about population growth, worker participation, worker mobility, and withdrawals. Perhaps the most important of these is the assumption that the majority of workers will participate in the program – our market research suggests that 88 percent of full-time and 85 percent of part-time workers will participate. The justifications for these assumptions are discussed in the Appendix. Because the final program design has not been determined and because any one assumption may differ from reality once the program is implemented, the study will also test the sensitivity of its results to changes in participation, costs, account closures, and other assumptions. The analysis will pay particular attention to program participation rates under alternative defaults, since increasing the default from 3 percent to 5 percent is one way to improve the program's finances.

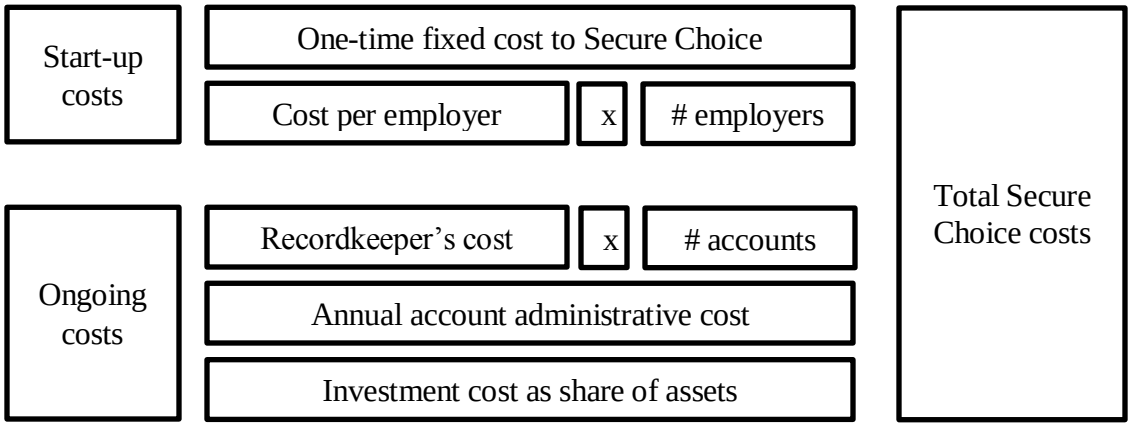
This report is organized as follows. The first section estimates the start-up and ongoing costs of Secure Choice. The second section estimates program revenue, which is ultimately collected as a fraction of total account balances and which, in turn, depends on worker participation, the contribution rate, asset returns, and account withdrawals. The third section projects how costs and revenue will interact to determine when the program becomes self-sufficient and when any initial losses will be covered. The fourth section provides insight into how alternative fees might affect estimates of the time needed to break even. The final section concludes that, under the initial assumptions for program design, it will take more than 10 years for the program to become profitable, but that increases to the default rate or fee could bring the time to profitability within the maximum contract length.

[2] Secure Choice may be rolled out in a slightly shorter amount of time than indicated here (two years instead of three). This change will not significantly affect the numbers presented in this report.

Program Costs

Secure Choice's costs fall into two categories: 1) the start-up costs associated with creating the program and bringing on employers; and 2) the ongoing administrative costs associated with maintaining accounts, serving participants, and managing investments. Figure 1 illustrates these costs schematically, highlighting two drivers of start-up costs: 1) the number of employers that will be brought into Secure Choice; and 2) the number of accounts that must be administered.

Figure 1. *Secure Choice Costs*



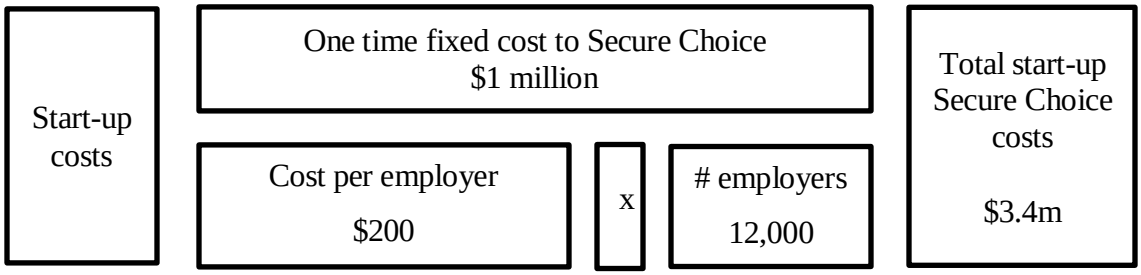
Start-up Costs

Start-up costs reflect two basic facts: 1) an auto-IRA program like Secure Choice does not currently exist; and 2) one of a third-party recordkeeper's biggest costs is connecting to individual employers. The first fact means that the initial fixed cost of developing Secure Choice's required infrastructure will need to either be paid by Secure Choice itself or borne by a recordkeeper. Based on information from auto-IRA studies for other states, as well as consultations with the Secure Choice Board, the fixed cost of developing the infrastructure to run the program was assumed to be $1 million. The second fact means that the recordkeeper must anticipate an additional cost to enroll each employer. After consultation with Segal, the study assumes an average enrollment cost of $200 per employer.[3] Although Illinois has over 150,000 employers that do not offer a retirement plan, just over 14,000 of these have 25 or more employees and have been in business for two or

[3] Adding new employers involves getting information from an employer to a recordkeeper to auto-enroll workers and set up accounts, as well as setting up an interface between an employer's payroll system and the recordkeeping platform to process ongoing payroll deductions.

more years, as required by the mandate. The study further assumes that 20 percent of these employers will decide to offer a private sector plan instead of enrolling its employees in Secure Choice. The end result is that the study assumes roughly 12,000 employers will need to be enrolled in the program.[4] Figure 1A updates Figure 1 to include these start-up costs.

Figure 1A. *Summary of Start-up Costs*



Ongoing Costs

The next driver of overall cost is the per-account administrative cost, which the recordkeeper incurs to keep track of account funds and to provide statements, cover call centers, and maintain the program's website for the account holders. The administrative cost also covers the transaction costs associated with money coming into the program and money going out of the program through distributions. After consultation with Segal on the operating models being considered, this report assumes a per-account cost of $30 per year.

The contribution of account administrative costs to Secure Choice's total costs largely depends on the number of accounts. In this study, two types of accounts exist: active and inactive. In active accounts, an individual is working for an employer without a plan and is contributing to the plan. Inactive accounts are held by someone who is no longer employed at an eligible employer but who has not closed out his account. Given the initial scenario, the number of active accounts is presented in Table 1.[5]

[4] The start-up costs associated with connecting employers to Secure Choice is paid over the first three years of the program, as it is rolled out to more employers.
[5] For a more detailed description of these estimates, see the Appendix.

Table 1. *Number of Active Full- and Part-time Participants in Secure Choice*

	Year 3	Year 5	Year 10	Year 15	Year 20
Full-time	714,000	721,000	739,000	758,000	777,000
Part-time	169,000	171,000	175,000	180,000	184,000
Total	**883,000**	**892,000**	**914,000**	**938,000**	**961,000**

Source: CRR calculations.

Inactive accounts are assumed to come from two types of employees who exit the program and do not close their accounts: 1) workers who become unemployed; and 2) workers who switch to an employer that offers a retirement plan. The rates at which individuals transition from active to unemployed and from active to ineligible appear in the Appendix and are based on the *Survey of Income and Program Participation* (SIPP); the basic assumption is that 85 percent of active accounts remain active each year, while 9 percent become inactive.[6] The number of inactive full- and part-time accounts is shown in Table 2.

Table 2. *Number of Inactive Full- and Part-time Participants in Secure Choice*

	Year 3	Year 5	Year 10	Year 15	Year 20
Full-time	75,000	131,000	207,000	245,000	266,000
Part-time	28,000	44,000	64,000	73,000	77,000
Total	**103,000**	**175,000**	**271,000**	**318,000**	**343,000**

Source: CRR calculations.

Combining Tables 1 and 2 and assuming the $30 per-account administrative cost allows the calculation of total account administrative costs shown in Table 3. Because these administrative costs are sensitive to several assumptions made so far, Box 1 highlights how costs would change under alternative assumptions.[7]

[6] The remaining 6 percent of accounts close, which is discussed in more detail in the revenue section of this report. Once inactive, some workers do reenter the program. Each year, 5 percent of inactive workers in the covered sector are assumed to return to eligibility, and workers who become unemployed are assumed to reenter the program the next year. For more details, see the Appendix.

[7] It is worth noting that Table 3 shows administrative costs under a default contribution rate of 3 percent. Although the default rate does not influence costs directly, CRR research indicates that slightly more people will opt out under a 5 percent default than a 3 percent default, reducing the account administrative costs. However, the reduction in participation is relatively small (about 1 percentage point), so costs under a 5-percent contribution are not shown.

Table 3. *Annual Account Administrative Costs*

	Year 3	Year 5	Year 10	Year 15	Year 20
Active accounts	883,000	892,000	914,000	938,000	961,000
Inactive accounts	103,000	175,000	271,000	318,000	343,000
Total accounts	**886,000**	**1,067,000**	**1,185,000**	**1,256,000**	**1,304,000**
x cost per	$30	$30	$30	$30	$30
Account admin. costs	**$26.9m**	**$32.0m**	**$35.6m**	**$37.7m**	**$39.1m**

Source: CRR calculations and discussions with Segal.

Box 1. *Account Administrative Costs under Alternative Assumptions*

Because administrative costs are driven by the number of accounts, costs are lower with fewer accounts. For example, assume that participation is 50 percent, and 50 percent of workers exiting the program close their accounts (rather than the initial assumption of 85-88 percent participating and 20 percent closing accounts). In this case, by program Year 20, there would be 676,000 accounts resulting in account administrative costs of $20.3 million, rather than $39.1 million under the initial scenario. Of course, these assumptions also reduce program assets and revenue substantially (see Box 2).

Going back to the original assumptions on participation and closures, should per-account costs increase from $30 to $35, administrative costs would increase substantially by Year 20, to $45.6 million, demonstrating the importance of controlling the per-account cost.

In addition to the cost per account, other yearly costs include general operating costs such as program governance, the costs of communicating with employers and employees across Illinois, and staffing. Unlike the per-account costs, these costs are not assumed to be a function of the number of accounts and remain roughly constant over the life of the program.[8] Table 4 shows the assumed costs associated with the state's administrative operation, reflecting CRR consultation with the Secure Choice Board. In addition to the cost per-account, Secure Choice will cost roughly $1 million dollars per year to run.

[8] In practice, we assume that the cost of governance and communication grows 1 percent faster than inflation, and the cost of staffing grows 2 percent faster than inflation over the course of the program.

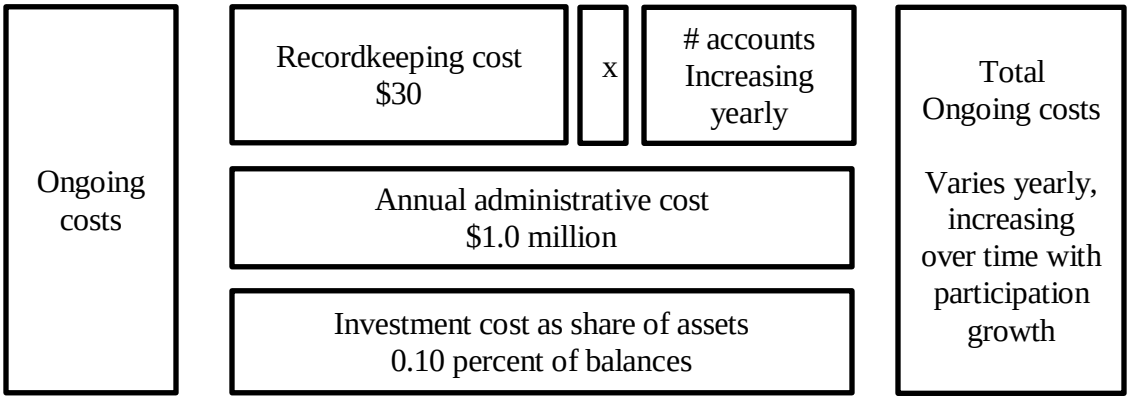
Table 4. *Yearly Program Administrative Costs*

Administrative task	Yearly cost
Governance	$150,000
Communication/publications	$450,000
Staff	$400,000
Total	**$1,000,000**

Source: CRR discussions with Secure Choice.

The final type of cost associated with the program is the fee for investment management. This cost is simply a fraction of participants' total account assets under management. Because it is assumed Secure Choice will have investment options with limited management (such as a Target Date Fund) and because Secure Choice is expected to achieve significant scale, these costs are assumed to be relatively low, at one-tenth of 1 percent or 10 basis points. Figure 1B fills in the ongoing costs portion of Figure 1.

Figure 1B. *Summary of Ongoing Costs*



Figures 1A and 1B summarize the total costs of Secure Choice. While these costs are high initially due to fixed costs, they also contain a component that increases over time with the number of accounts. Thus, to be feasible, Secure Choice must quickly generate revenue to cover its fixed costs and ultimately have higher balances per account so that the $30 fee can be covered by the fee on assets, which under statute is limited to 0.75 percent of assets (75 basis points). The next section will discuss whether these conditions are likely to be met.

Program Revenue

The feasibility of Secure Choice largely comes down to the ability of revenue to exceed ongoing costs in a relatively short time. After this "breakeven" point is reached, the program can begin to pay back the start-up costs highlighted above, along with any losses incurred during the initial period when ongoing costs exceeded revenue. This part of the study estimates the revenue generated by the program, given the initial assumptions laid out above and in the Appendix. Since fees are estimated as a percentage of assets under management, this section analyzes what will drive the underlying asset levels: 1) how much money participants contribute to the program each year; 2) how much money exits the program through participant withdrawals and account closures; and 3) how much assets grow through investment returns. The section closes by describing how account balances can be expected to accumulate over time.

Contributions to the Program

Contributions are generated by the active accounts laid out in Table 1 above. The total dollars contributed depend on two factors: 1) the contribution rate of each participant; and 2) the average participant's income. Due to the current statutory language, the initial scenario assumes participants are enrolled at a contribution rate of 3 percent of gross pay, with an alternative scenario of 5 percent. To determine the contribution amount, the contribution rate is applied to the average income of full- and part-time workers in Illinois (based on the *Current Population Survey*): $38,500 for full-time workers and $11,000 for part-time workers.[9] Given the number of active accounts, the contribution rate, and the average wage, Table 5 shows the projected contributions to the program by full- and part-time workers in various program years under the two default contribution rates under consideration.

[9] These are participation-weighted averages by age, reflecting the fact that older workers have higher wages but are also more likely to opt out. If the wage were calculated as a simple average, it would be higher. These average wage calculations also eliminate anyone earning over $117,000 a year, as these individuals may not be eligible for a Roth IRA.

Table 5. *Estimated Annual Contributions to Secure Choice, in Millions*

	Year 3	Year 5	Year 10	Year 15	Year 20
3-percent default					
Full-time	$824.5	$832.7	$853.7	$875.3	$897.4
Part-time	55.2	55.7	57.1	58.6	60.0
Total	**879.7**	**888.4**	**910.8**	**933.9**	**957.4**
5-percent default					
Full-time	$1,356.7	$1,370.3	$1,404.9	$1,440.4	$1,466.7
Part-time	90.7	91.6	94.0	96.3	98.8
Total	**1,447.4**	**1,461.9**	**1,498.9**	**1,536.7**	**1,565.5**

Source: CRR calculations.

Account Withdrawals and Growth

Once money is contributed to an account, it can exit the plan in one of two ways: 1) through in-service withdrawals that occur even when a participant is not closing his/her account; or 2) through account closures (cash-outs). In-service leakages, including withdrawals and account closures, typically average around 1 percent of total 401(k) plan assets, and that rate is assumed here.[10] However, account closures are likely to be more frequent in Secure Choice than in 401(k)s, because workers covered by Secure Choice are more mobile than 401(k) participants and are more likely to become unemployed. This study assumes that 20 percent of workers either becoming unemployed or exiting Secure Choice-covered work (by switching to an employer that offers a retirement plan) close their Secure Choice account. Additionally, the study assumes any worker retiring or moving out of Illinois closes their account. Estimates of the rate at which these events occur are provided in the Appendix, but the net result is that, in any given year, 6 percent of Secure Choice accounts are likely to close.[11]

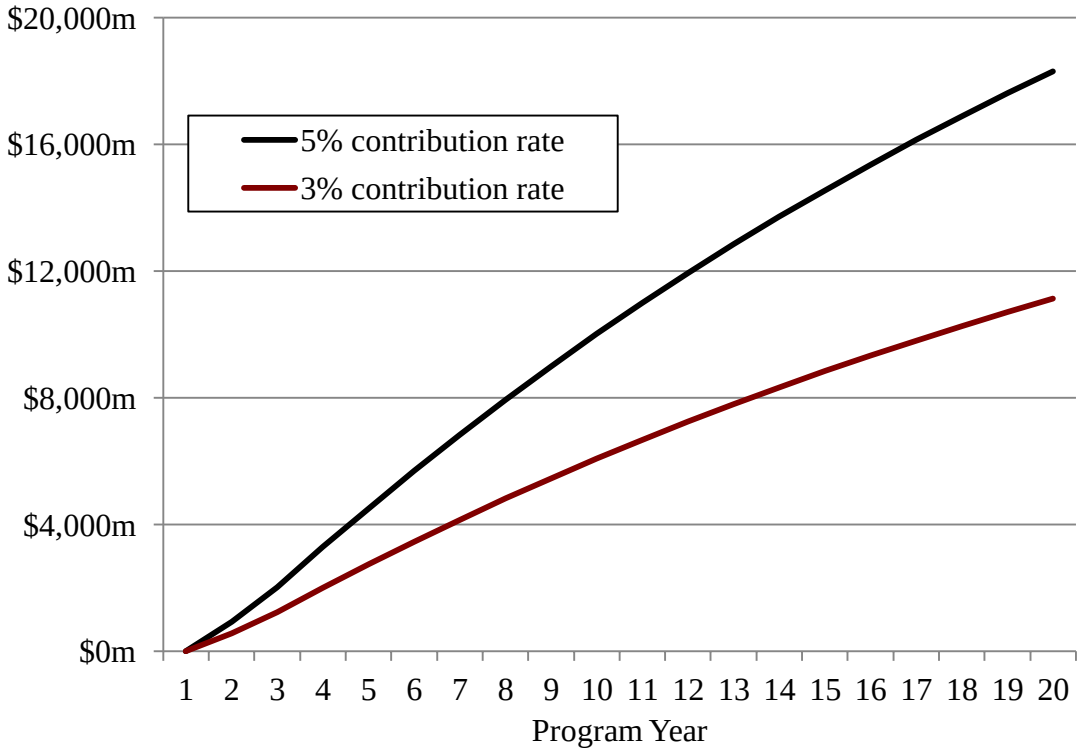
Regarding investment returns, the study initially assumes that money in the plan is invested in a blended fund with an average rate of return of 5 percent annually. Consistent with the current statute, the study also assumes an initial fee level of 0.75 percent, so that the net-of-fees return is 4.25 percent.[12] Figure 2 shows how assets are estimated to accumulate over time in Secure Choice

[10] Sensitivity to this assumption is tested later in the study.
[11] The study assumes that accounts that close have balances equal to the average of all accounts. Because larger accounts are less likely to close than smaller ones, this assumption likely overstates losses due to closures.
[12] As discussed below, the initial fee level of 75 basis points is higher than is needed to cover costs in the long run. Alternative assumptions on the rate of return are also shown below.

under these assumptions regarding contributions, leakages, and investment returns, and given default contribution rates of 3 percent and 5 percent.

Figure 2 illustrates that assets grow quickly as the program rolls out, with almost linear growth occurring thereafter. Two things are worth noting about Figure 2. First, at contribution rates of either 3 percent or 5 percent, the program achieves scale relatively quickly. For example, at 3 percent, program assets reach $1 billion – a benchmark used in Connecticut's Feasibility Study as a target – in under three years and assets exceed $2 billion in five years.[13] Second, at 5 percent, the program's assets accumulate much quicker, ultimately exceeding $4 billion within five years. Box 2 discusses how these assets change under the same assumptions presented in Box 1, as well as under alternative assumptions of higher in-service leakages or lower investment returns. The next section highlights how the revenue generated by these assets interacts with the costs described earlier to determine the breakeven point as well as the highest initial loss accrued by the program.

Figure 2. *Estimated Total Assets under Management in Secure Choice, in Millions*



Source: CRR calculations.

[13] See State of Connecticut Retirement Security Board (2016), available here: http://www.osc.ct.gov/crsb/docs/finalreport/CRSB_January_1_Report.pdf

Box 2. *Secure Choice Assets under Alternative Assumptions*

In Box 1, fewer participants (a 50-percent participation rate) and more account closures (a 50-percent closure rate) than under the initial assumptions lead to fewer accounts and lower costs. But these assumptions also lead to lower asset levels. Under these assumptions, in Year 20 of the program there would be $4,994 million in Secure Choice accounts given a 3-percent default contribution and $8,323 million under a 5-percent default, compared to $11,130 and $18,315 under the initial scenarios for asset levels, respectively.

Staying with the initial higher participation levels and lower closure rates, but assuming higher leakages from workers' accounts, asset accumulation also declines. If leakages are 4 percent (instead of 1 percent under initial assumptions), asset accumulation drops to $8,554 million by Year 20 under a 3-percent default and $14,076 million under a 5-percent default. Finally, assuming a rate of return of 3 percent (2.25 percent net of fees) reduces assets to $9,694 and $15,591 under 3- and 5-percent defaults, respectively.

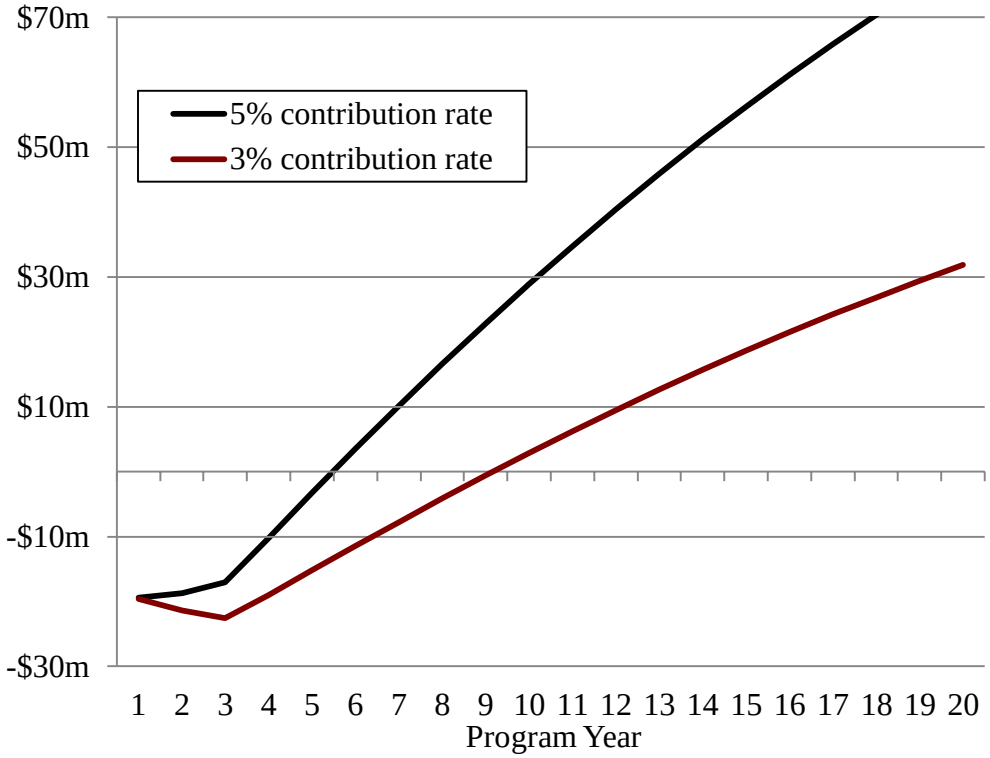
Secure Choice Finances

Front-loaded costs and back-loaded revenue pose a financing challenge for Secure Choice given the limit on fees of 0.75 percent (75 basis points). Projecting how long it will take the program to breakeven and how large a deficit will accumulate during the time period that revenue falls short of costs can help the Secure Choice board decide whether program or plan design (e.g. the default contribution rate) need to be changed before asking vendors to bid for a contract to operate the plan.

The "Breakeven" Point

A key driver of the program's financial status is the length of time for the revenue to exceed the ongoing costs of account and program maintenance (summarized in Figure 1B). If Secure Choice goes on too long with an operating deficit the program will end up with a large overall deficit. As Figure 3 shows, the amount of time for the program to break even is very sensitive to the default contribution rate. At a rate of 3 percent, the program breaks even in Year 10, but under a rate of 5 percent the program breaks even in Year 6, a full four years earlier.

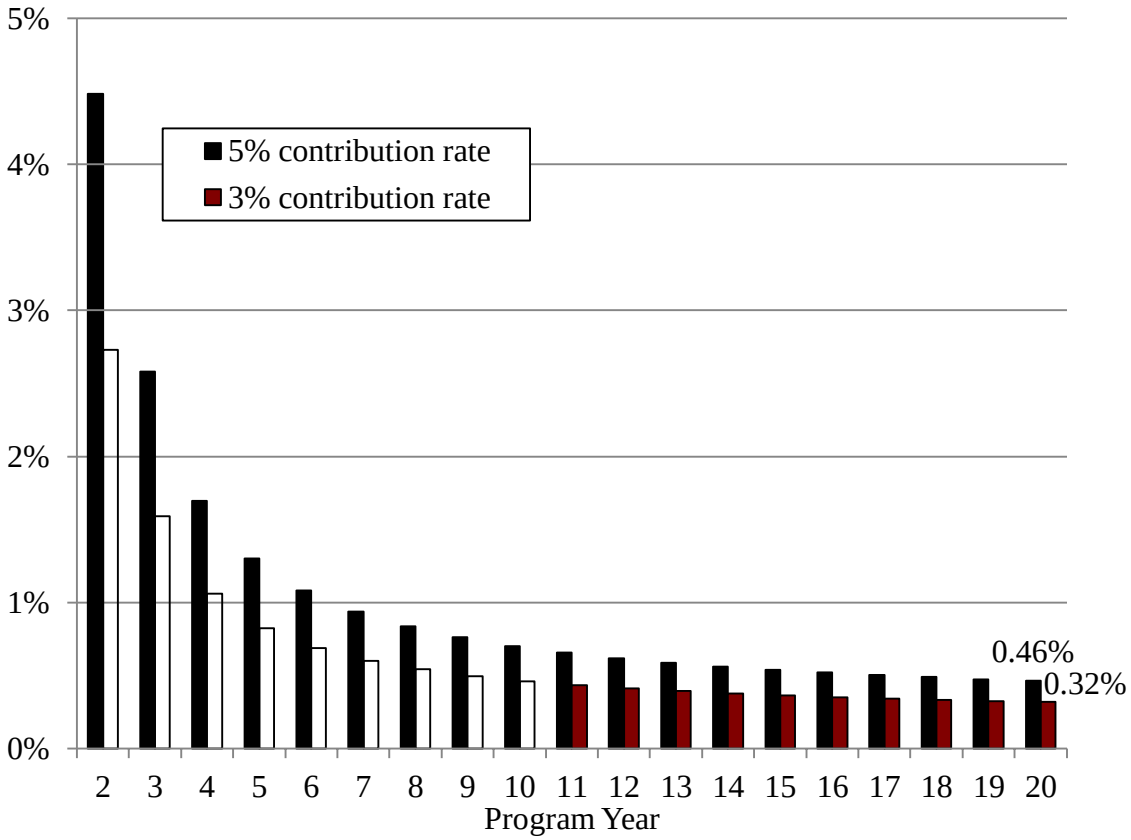
Figure 3. *Difference between Ongoing Revenue and Costs of Secure Choice, in Millions*



Source: CRR calculations.

The study estimates that in no more than 10 years after Secure Choice's launch, the cost of running it should fall below 0.75 percent of assets regardless of the default contribution rate chosen. Figure 4 shows the progression of ongoing costs as a share of asset balances and illustrates that long-run costs fall below 0.50 percent of assets under either assumption on the default contribution rate. This longer term trend suggests that fees could be lowered for program participants once the program is up and running. Box 3 contains information on how the number of years to the breakeven point change based on changes to the program design and the economic assumptions outlined in Box 2 and under some alternative cost assumptions.

Figure 4. *Ongoing Costs as a Share of Assets*



Source: CRR calculations.

Box 3. *Secure Choice Time to Breakeven Under Alternative Assumptions*

Should participation be lower than anticipated (50 percent) and account closures higher (50 percent), the time to breakeven is 11 years under a default contribution of 3 percent (instead of 10 years) and still 6 years under a 5-percent default. The small effect of these changes occurs because lower revenue is generally offset by lower account administrative costs.

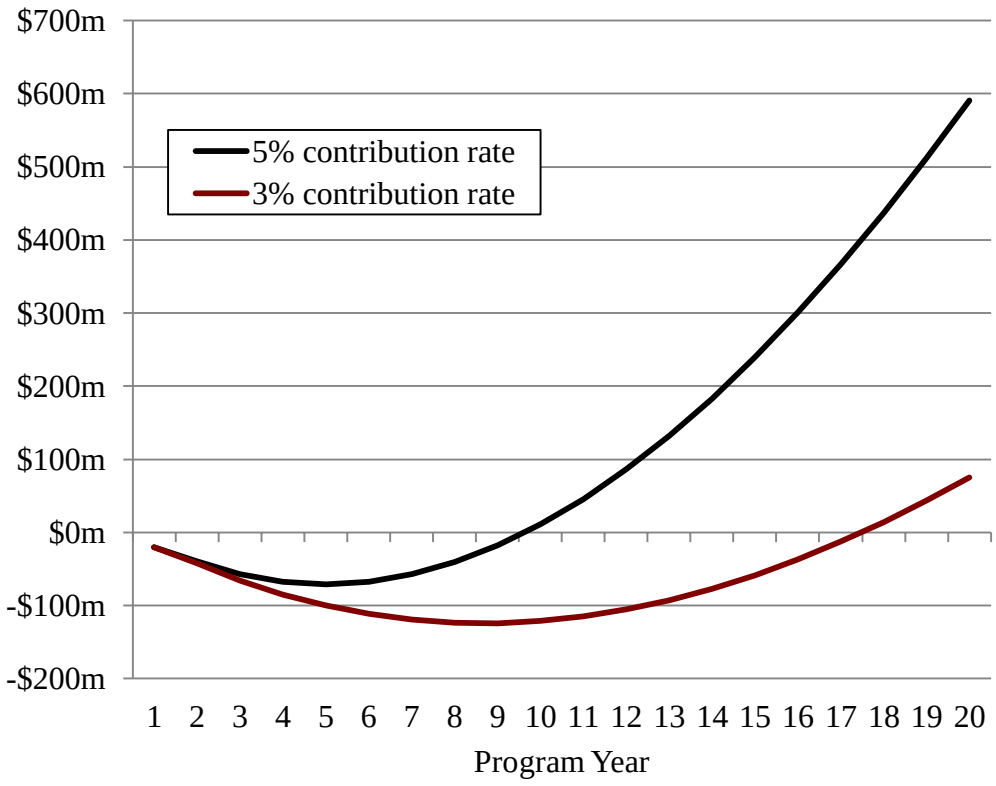
Given the initial assumed participation and account closure rates, quadrupling leakages to 4 percent increases the breakeven time to 12 years under a default contribution of 3 percent and it remains at 6 years for a default contribution of 5 percent. Reducing stock returns to 1 percent does not change the breakeven year under either contribution rate. This result stems from the fact that early Secure Choice asset growth is driven primarily by contributions.

Increasing recordkeeping costs per account to $35 increases the breakeven year from 10 to 11 and from 6 to 7 under default contribution rates of 3 percent and 5 percent respectively.

Paying Off Initial Losses

As shown above, Secure Choice initially will operate at a loss. These losses will compound with any start-up costs to create an initial program deficit that must be repaid once the breakeven point is reached. The feasibility study calculates both the length of time it takes for the program to ultimately repay this initial deficit and the largest deficit that could occur. This maximum potential deficit is important, because it serves as a measure of risk to the potential private sector partners that might bid on the program. If Secure Choice wishes to take out a loan to be paid back out of program assets, the largest deficit also provides an estimate of how large such a loan would have to be. Figure 5 shows this calculation with both a 3- and 5-percent default contribution rate, again under the assumption that fees are 0.75 percent of assets under management.

Figure 5. *Running Secure Choice Net Profits, in Millions*



Source: CRR calculations.

Figure 5 shows that the program achieves a positive running profit by Year 10 if the default contribution rate is 5 percent, but not until Year 18 if the rate is 3 percent. This finding suggests that

a recordkeeper that absorbs the initial start-up costs and operating deficit would be willing to accept a 10-year contract under a 5-percent default but might not under a 3-percent default. The maximum deficit is $71 million under a 5-percent default and $124 million under a 3-percent default. If Secure Choice took on a portion of these losses through a loan to be paid back later, then a shorter contract could be offered (and less risk-averse vendors might bid to serve the program). Box 4 shows how these quantities vary under the alternative assumptions from Box 3.

Box 4. *Length to Repay Starting Costs and Maximum Deficit under Alternative Program Design and Economic Assumptions*

If participation is low (50 percent) and account closures are high (50 percent), Secure Choice will take over 20 years to pay off the initial loss at a contribution rate of 3 percent, but with a smaller maximum deficit of $77 million, as opposed to $124 million under the initial assumptions. The reason for a smaller deficit is that while fewer accounts exist to generate revenue to pay off the deficit, the costs of a smaller account base are also lower. Under a default contribution rate of 5 percent, the comparable numbers are 11 years and $44 million, instead of $71 million under the initial assumptions.

If the initial participation and closure rates are assumed, then with a default contribution rate of 3 percent and 5 percent, quadrupling the leakages increases the length of time to become profitable to over 20 years and 11 years, respectively, and results in corresponding deficits of $142 million and $75 million. If the rate of return is 3 percent instead of 5 percent, the corresponding times until Secure Choice becomes profitable are 20 and 11 years, with deficits of $130 million and $72 million.

If the cost is $35 per account instead of $30, then the time to become profitable is over 20 years at a default contribution rate of 3 percent and 12 years under a default of 5 percent. The corresponding deficits are $172 million and $95 million, respectively.

Increasing the Default: Does it Impact Participation?

Clearly, increasing the default contribution rate has a positive impact on Secure Choice's attractiveness to third-party providers. But a frequent concern is that increasing the default will also increase the rate at which Illinois workers opt out of the program, interfering with its goal of expanding retirement savings to as many people as possible. However, studies from the academic literature and other states' plans suggest that this concern is unfounded.

For example, to study participation in their programs, California and Connecticut performed online benefit-enrollment experiments in which participants were randomly assigned to programs with different contribution rates and asked about their decisions to remain enrolled or opt out. Box

5 shows how this experiment was conducted in Connecticut, where some respondents saw a default contribution rate of 6 percent.[14] A second group of workers saw a program with a 3-percent contribution rate and a third group saw the contribution rate *rise* over four years, from 6 to 10 percent. In California, workers saw a similar type of program description with either a 3-percent or 5-percent contribution rate. Changing the program descriptions slightly and seeing how workers respond shows how the level of the default contribution rate affects participation.

Box 5. *Example of Program Shown to Respondents in Connecticut's Enrollment Experiment*

Imagine you're offered the chance to participate in a retirement program at work. Please read the information about the program offered (below) and select the choice you'd likely make if this program were offered to you in reality.

Your employer will automatically deduct a contribution from each paycheck (just like it does for Social Security), and deposit the money into a retirement account in your name. Your savings will be invested and grow over time to provide you with income in retirement. Some important features of this program:

- 6 percent of your pay, or $60 per every $1,000 you earn, will be deducted and deposited into your account. You can change how much you contribute to your account once a year and can stop contributing at any time by opting out of the program.
- The money will be invested in a fund appropriate for someone your age, managed by a private company selected by the State of Connecticut.
- You can withdraw your contributions without penalty at any time; you pay taxes on your contributions up front.
- You can access *all* of your account balance (contributions plus investment earnings) without penalty or taxes when you retire.

Detailed information on the program can be found here.

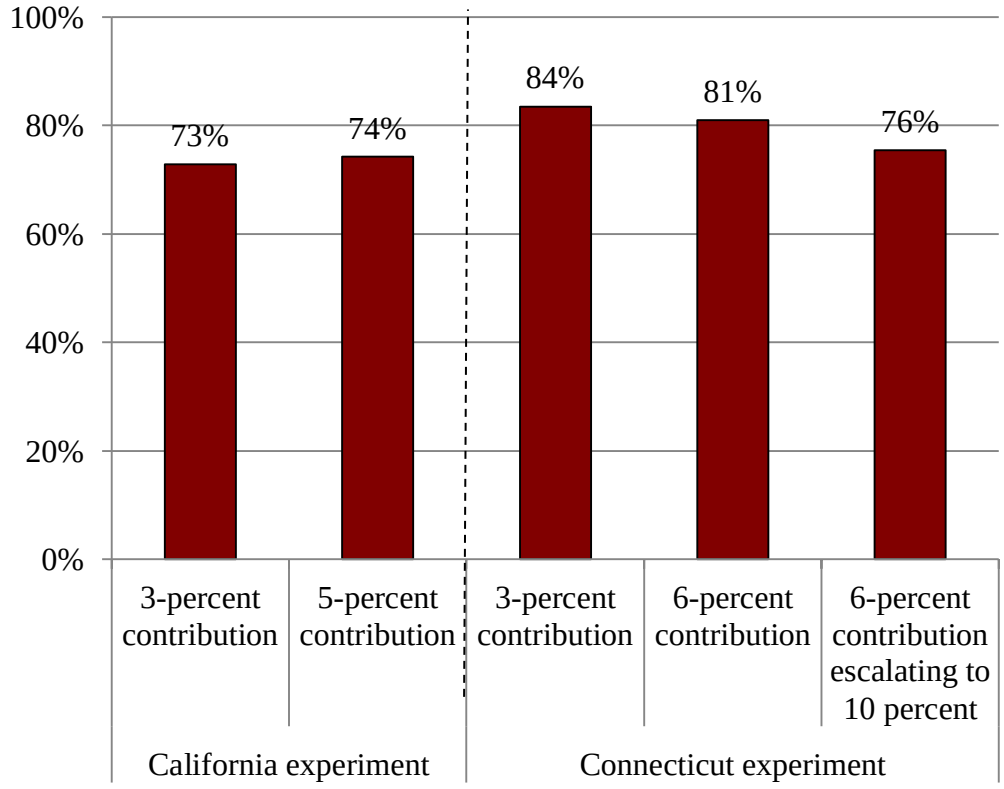
Source: State of Connecticut Retirement Security Board (2016).

The small difference in participation between 3 percent and 6 percent in the Connecticut experiment and 3 and 5 percent in the California experiment – shown in Figure 6 – suggests that states can likely default workers in at a higher contribution rate without risking low participation. [15]

[14] For more details on Connecticut's enrollment experiment, visit the Connecticut Retirement Security Board's website, http://www.osc.ct.gov/crsb and view Appendix A to the Market Feasibility study. For more detail on California's enrollment experiment, visit the California Secure Choice website, http://www.treasurer.ca.gov/scib and view the Overture Financial Final Report.

[15] While Connecticut's experiment was given to individuals across the country and then re-weighted to represent Connecticut's uncovered workers, California's experiment was able to focus on just workers because of California's larger size. This focus on California workers has been proposed as one reason why participation rates in California's

Figure 6. *Results from California and Connecticut Enrollment Experiments*



Source: Overture Financial (2016) and State of Connecticut Retirement Security Board (2016).

Secure Choice under Alternative Fees

So far, this report has projected program finances with a fixed set of assumptions other than the default contributions, which were projected using both 3 percent and 5 percent. In addition, Boxes 1 to 4 presented the effect of one-off changes to the fixed assumptions and suggest that the program will take well over a decade to become profitable even if some of the fixed assumptions are changed significantly. Under a default contribution of 5 percent, the outlook is better, with the program becoming profitable within 10 years even if some of the underlying assumptions turn out to be different than expected. But the default contribution rate is not the only lever that Secure Choice can use to make the program more attractive to service providers: fees can also dramatically alter financial projections. Table 6 shows how Secure Choice outcomes differ under fees of 1

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experiment are lower than Connecticut's, since workers in California indicated some distrust of the state government to run the program that may not have been present nationwide.

percent of assets, or 100 basis points, or by adding a fee of $2 per month on each active account. Although a fixed $2 fee on each account is regressive (i.e., it is a higher share of lower asset accounts), it is a simple way to alleviate some of the risk faced by a third-party provider.

Table 6. *Outcomes under Alternative Fees and Default Contributions*

Contribution rate	3 percent	3 percent		5 percent	
Fee	0.75%	0.75%	1.0%	0.75%	1.0%
Monthly fee on actives	None	$2	None	$2	None
Year 20 accounts	1,304,000	1,304,000	1,304,000	1,288,000	1,288,000
Year 20 assets	$11,130m	$10,850m	$10,935m	$18,038m	$17,994m
Breakeven year	10	4	7	3	5
Payoff year	18	6	12	4	7
Max deficit	$123.9m	$12.3m	$86.7m	$6.9m	$52.0m
Year 20 cost/assets	0.54%	0.55%	0.55%	0.37%	0.37%

Source: CRR calculations.

Table 6 makes it clear that increasing fees decreases the time it takes for the program to pay for itself and that charging a fixed fee has an especially large impact. The reason a fixed fee has such a large effect is simple: it counteracts the small balance issue so prevalent at the beginning of the program by linking revenue to the number of accounts rather than account balances. And it might make sense to link fees to the cost of providing service. Of course, charging a fixed fee does result in participants paying a larger share of their assets to the program during the first few years than they might have paid if they had joined a well-run corporate 401(k) plan instead.

Conclusion

This study has shown that Secure Choice will face challenges in becoming financially self-sufficient in a short amount of time. Under a default contribution of 3 percent and a fee of 75 basis points, the program will take well over a decade to become profitable. This may, in turn, make it difficult for the program to attract third-party providers given Illinois' limit on contract length.

However, an increase in the default contribution rate from 3 percent to 5 percent could make the program much more attractive, as could an increase in the fee charged on assets. While it may be that third-party providers believe they can provide services at costs lower than assumed here because of Secure Choice's scale – after all, Secure Choice will have over $1 billion in assets within three years – increasing the default contribution rate seems like a good way to ensure the program

becomes self-sufficient quickly. Furthermore, because the evidence suggests higher defaults do not decrease participation significantly, this approach is consistent with Secure Choice's goal of increasing retirement security.

Appendix

This Appendix lays out the assumptions used to derive the number of active and inactive accounts, as well as the number of account closures. These assumptions drive both program costs and program revenues.

Number of Active Participants

The number of participants in Secure Choice is driven by two factors: 1) the pool of eligible workers; and 2) the rate of participation of eligible workers. As Table A1 shows, about 1.2 million of the 2 million people in Illinois working for an employer without a retirement plan will be required to auto-enroll in Secure Choice (bolded in the table).[16] It is worth noting that other uncovered workers in Illinois, for example those ineligible for their employer's plan and the self-employed, will not be covered under the current Secure Choice mandate. While other states have included the possibility of allowing these workers to opt in eventually, this possibility was not considered in the current study.

Table A1. *Uncovered Workers in Illinois, 2012*

Reason for not having coverage	Number of workers	Share of total workforce
All Illinois workers	5,756,000	100.0%
Uncovered workers	*3,173,000*	55.1%
Employer does not offer plan	2,029,000	35.3%
25+ employees, 2+ years in business	**1,226,000**	**21.3%**
Employer offers plan, not included	697,000	12.1%
Self-employed without plan	447,000	7.8%

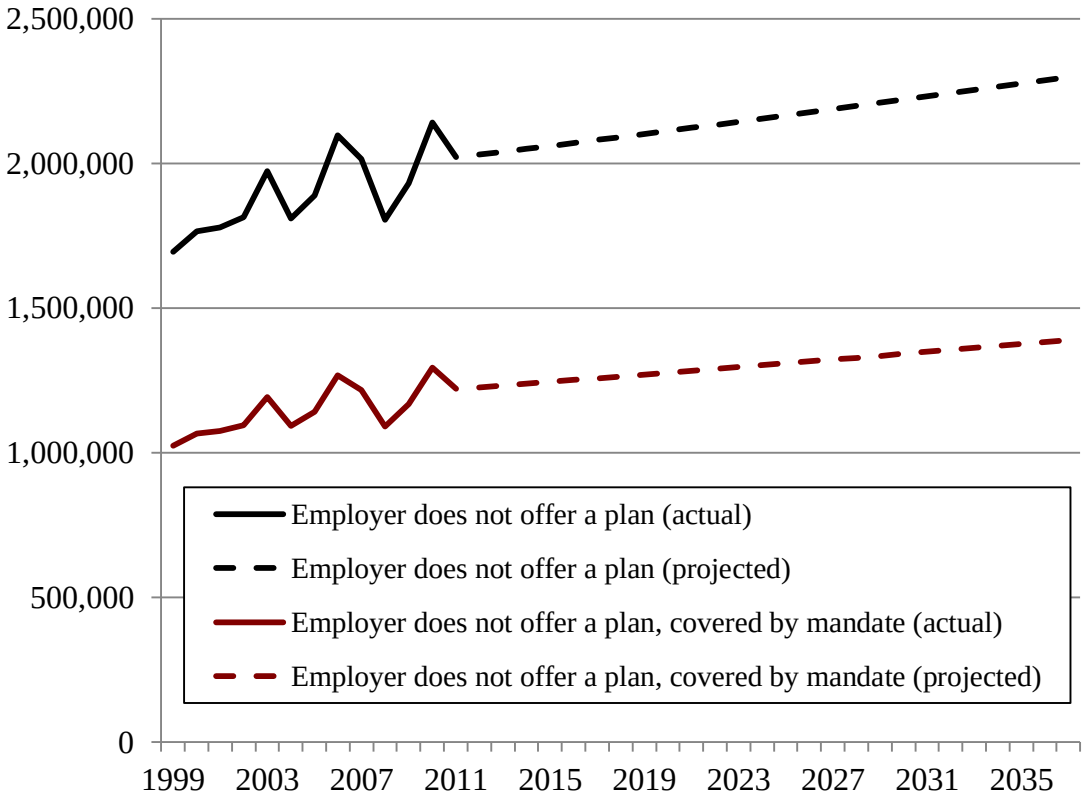
Note: Weighted using the *Current Population Survey March Supplement* weights. Includes both private and public sector workers. All public sector workers are considered as working for an employer offering a plan without being included.
Source: CRR calculations from *Current Population March Supplement*, 2013 (reflecting calendar year 2012).

Of course, projecting the feasibility of Secure Choice requires knowing not just the population of eligible workers today but also the eligible population over the next 20 years.

[16] The base year was 2012 in the population calculations, because a change in sample design and weighting of the *Current Population Survey* used in this analysis may result in an artificially inflated number of uncovered workers. See Copeland (2015).

According to the Bureau of Labor Statistics, the U.S. labor force is expected to grow 0.5 percent per year over the next decade, and this rate was assumed for the feasibility study. The net result of that assumption is shown in Figure A1: by 2037, the last year projected in this study, an estimated 1,389,000 workers will be eligible for auto-enrollment in Secure Choice. Figure B1 also shows projections for the full group of workers without a plan at work.

Figure A1. *Actual and Projected Number of Workers Over 18 at Employers without a Retirement Plan, 1999-2037*



Source: CRR calculations from *Current Population Survey March Supplement*, 2000-2015 (representing calendar years 1999-2014).

Once the number of workers without a plan at work whose employers are eligible for Secure Choice is determined, the feasibility model divides this population between full-time and part-time workers. This division of workers is important for three reasons stemming from our research: 1) part-time workers are more likely to opt out than full-time workers; 2) part-time workers are more mobile than full-time workers; and 3) part-time workers earn less than full-time workers. Based on

an analysis of *Current Population Survey* data for Illinois, the feasibility study assumes that roughly 80 percent of workers without a plan at work are full-time workers (30 or more hours per week) and the remainder are part-time workers.

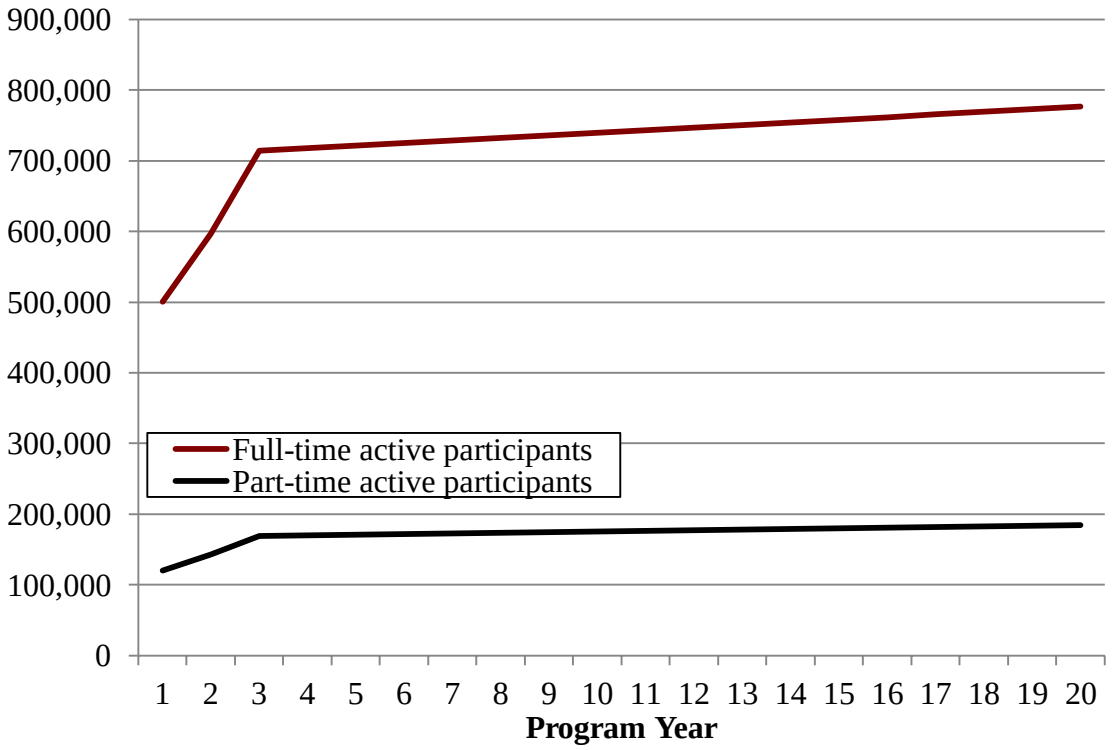
Of course, not all of eligible full-time and part-time workers will participate in the plan. For one, employers currently without a plan may decide they would rather offer their own in-house alternative to Secure Choice. Until the program is actually rolled out, it is unclear how often this will occur. The study has assumed that 20 percent of employers currently not offering a plan take this alternative course regardless of their firm's size. This combination of assumptions means that the number of potential participants highlighted in Figure A1 was reduced by 20 percent in the study. Next, the study assumes that the program is rolled out to employers with 100+ employees in the first year, 50+ employees in the second, and then 25-49 employees in the third year. This roll-out schedule means that in the first year of the program, only 42 percent of workers at firms touched by the mandate are reached, in the second year an additional 8 percent, and in the final year the remaining half.

Finally, some workers who are eligible for the plan (and whose employer chooses Secure Choice) will opt out. Under the plan design currently being considered – a Roth IRA with a default contribution of 3 percent – the Center for Retirement Research estimates that roughly 88 percent of full-time and 85 percent of part-time workers will participate in the program. This estimate is based on a nationwide survey of uncovered workers, with the results weighted to reflect the Illinois population's distribution of income and age. These participation rates reflect the fact that participation is expected to be higher under a lower default rate than a higher one. In the projections that assume a default contribution of 5 percent, participation is subsequently reduced to 86 percent and 84 percent for full- and part-time workers, respectively. The rates also reflect the age and income distribution of Illinois workers – older workers are less likely to participate in Secure Choice and higher-income workers are more likely to participate, according to the national survey. Although other relevant variables do influence participation – Hispanic and black workers are more likely to participate than whites, for example – the most significant factors are income and age. Because these participation rates are estimates, the feasibility model is also tested under lower assumed rates of participation, with results presented in the main body of the report.

The number of active Secure Choice accounts is arrived at by multiplying the number of eligible workers and the participation rate – i.e., the number of accounts where an individual is

currently deducting a contribution from their paycheck. Based on the projections contained in Figure A1, the assumptions on employer response to Secure Choice, the roll-out schedule, and the participation rates discussed above, Figure A2 shows the number of full- and part-time active participants over the first 20 years of the plan. Participation quickly increases during the first three years of the program as more employers are reached by the roll-out, and participation continues to grow in line with population growth. Figure A2 shows the result for a 3-percent default, with the estimates slightly lower if a 5-percent default is used.

Figure A2. *Estimated Number of Full- and Part-time Active Participants under 3-Percent Default*



Source: CRR calculations.

Number of Inactive Participants

Inactive participants are participants formerly eligible and participating in Secure Choice who have either become unemployed or switched to a job not covered by Secure Choice (because the employer offers a qualified plan) but have maintained their account. Three factors influence the number of inactive accounts. The first are the levels of mobility between jobs and between jobs and nonemployment amongst active participants. The second is the rate at which participants who

switch jobs end up employed at an employer offering a qualified plan. The third is the rate at which workers making these transitions close their accounts.

To estimate worker mobility – the first two measures – longitudinal data are required to follow individual workers who would currently be eligible for Secure Choice to see their transition rates. For this purpose, the *Current Population Survey* used throughout much of this study is inadequate, since only a subset of the sample contains longitudinal data. Instead, the study turns to the *Survey of Income and Program Participation*, a study that follows individuals for two to five years and asks detailed information about retirement plans and tracks an individual's place of employment. In particular, the study identifies a sample of workers who would be eligible for Secure Choice and then follows them for one year to see if they: 1) remain at the same job; 2) switch jobs; 3) become nonemployed; or 4) leave Illinois. The study assumes workers who switch jobs or become nonemployed have the chance to become inactive participants, while workers exiting the state will close their accounts (see below). Table B2 shows the estimated rates of mobility.

Table B2. *One-Year Job Mobility Rates for Illinois and U.S. Workers by Coverage and Hours Worked, 1997, 2005, and 2009*

	Full-time			Part-time		
	Covered at work	Employer does not offer plan	Employer offers plan, not included	Covered at work	Employer does not offer plan	Employer offers plan, not included
Illinois						
Same employer	80.6%	69.1%	69.8%	76.3%	57.5%	50.3%
New employer	13.9	22.7	24.2	16.3	24.0	33.5
Not working	4.1	7.2	4.6	7.5	17.9	12.9
Exit Illinois	1.4	1.0	1.3	0.0	0.6	3.2
Rest of U.S.						
Same employer	79.9	67.7	65.0	68.3	53.4	53.9
New employer	14.8	23.1	26.4	21.3	28.3	30.1
Not working	3.8	7.8	6.4	8.9	16.8	13.6
Exit state	1.4	1.3	2.3	1.5	1.5	2.4

Source: Survey of Income and Program Participation, 1996, 2004, and 2008 Panels (representing data on mobility for 1997, 2005, and 2009).

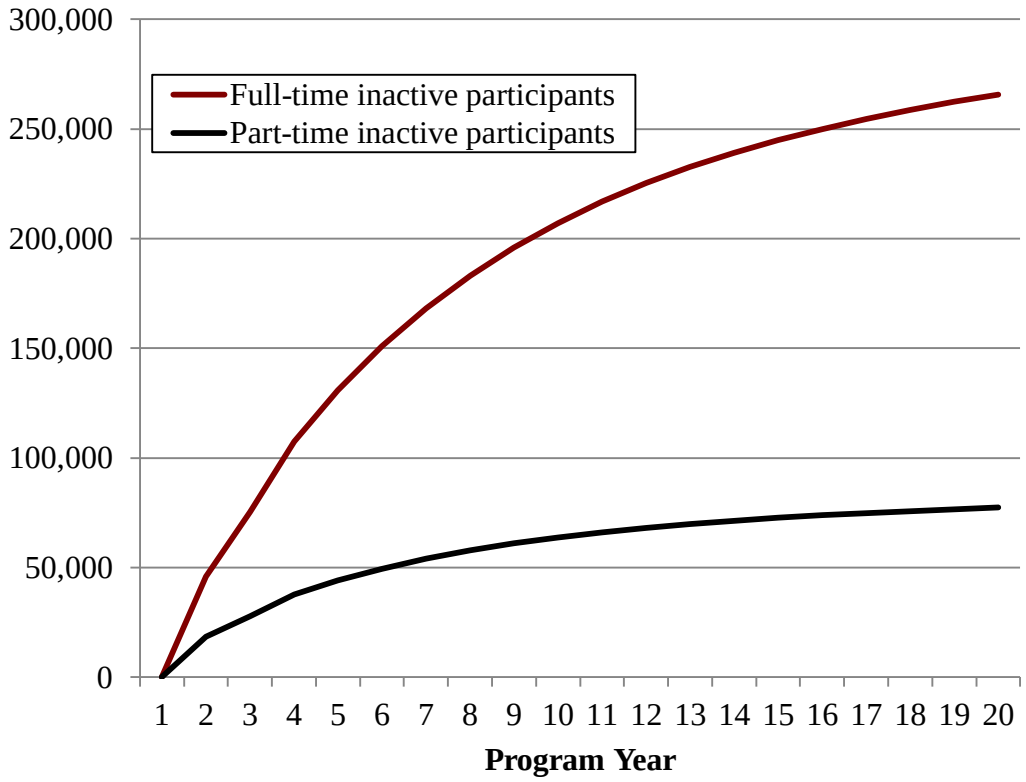
Because the sample of workers from any one state in the SIPP is small, Table B2 shows the results for both Illinois workers and U.S. workers. The results are fairly similar and indicate that

workers affected by Secure Choice, and particularly part-time workers, are more mobile than workers covered by a private-sector employer plan. Because the sample of Illinois workers is relatively small, U.S. estimates were used in the study. Although the table above uses several panels of the SIPP to increase sample sizes, the 2008 data have a special feature: the survey asks people two different times one year apart about their employer's pension offerings while the other panels ask these questions only once. This allows the study to estimate the rate at which employees who switch jobs end up at an employer offering a qualified plan. This was accomplished by examining the pension coverage of workers who were said they were not covered by a retirement plan in 2009 when they were first interviewed, but who said they were covered in 2010. The study finds that 74 percent of eligible workers who switched jobs still did not have a retirement savings plan at their second job.

These numbers can be used to estimate the rate at which workers either remain covered by Secure Choice or transition out of the program. Because 68 percent of eligible workers remain at the same job and another 17 percent (0.23*0.74) switch jobs but remain eligible for Secure Choice, the study assumes 85 percent of active accounts remain active.[17] Of the remaining 15 percent, 6 percent of workers are assumed to switch jobs to employers ineligible for Secure Choice. Of these, and in the absence of reliable data on the likely rate account closures, the study assumes 20 percent close their account and 80 percent maintain it. An additional 8 percent of workers are assumed to leave their job for nonemployment. Of these, we assume 30 percent retire (based on the age profile of Illinois workers), while 70 percent look for work and have a choice as to whether to maintain their account. Again, we assume 20 percent of these workers close their accounts while 80 percent maintain them. The net result of these assumptions is that, in any period, about 5 percent (0.23*0.26*0.80) become inactive due to switching to an ineligible employer while 4 percent (0.08*0.70*0.80) of active accounts will become inactive due to nonemployment.[18] The end result is shown in Figure A3.

[17] This number is for full-time workers. Part-time workers have a rate of 74 percent remaining active, which is lower than for full-time workers due to part-time workers' higher rates of job mobility and transitions to not working.
[18] This number is for full-time workers. Part-time workers have a rate of 15 percent becoming inactive, which is higher than for full-time workers due to part-time workers' higher rates of job mobility and transitions to not working.

Figure A3. *Estimated Number of Full- and Part-time Inactive Participants*



Source: CRR calculations.

Account Closures

Workers who transition to an ineligible employer or who cease working temporarily can also close their accounts. The numbers presented above can be used to calculate the rate of account closures in a straightforward way. Because 20 percent of workers who move to an ineligible employer close their accounts, a little over 1 percent (0.06*0.20) of active accounts will be closed annually by these workers. Another 1 percent (0.08*0.70*0.20) will be closed by workers who cease working temporarily. Finally, we assume all workers retiring or leaving Illinois close their accounts. This results in an additional 4 percent of active accounts closing each year – 2 percent due to retirement (0.080*0.30) and 2 percent due to moving out of Illinois. On the whole, about 6 percent of active accounts are assumed to close each year.[19]

[19] This is the number for full-time workers. Part-time workers have a rate of 10 percent closing, which is higher than for full-time workers due to part-time workers' higher rates of job mobility and transitions to not working.

Inactive Accounts Returning to Active

The last transitional feature of the model is that some inactive accounts again become active. In particular, the model assumes that all unemployed workers "churn" back into the market the next year, since spells of not working are usually brief. Of the inactive accounts held by workers at ineligible employers, a small fraction re-enter Secure Choice each year as they transition back to covered companies. In the *Survey of Income and Program Participation* analysis described above, about 11 percent of workers with a plan at work switch jobs in a given year and, of these, about 33 percent switch to a job without a plan. Thus, each year about 4 percent of inactive accounts held by workers outside of Secure Choice reenter the program.