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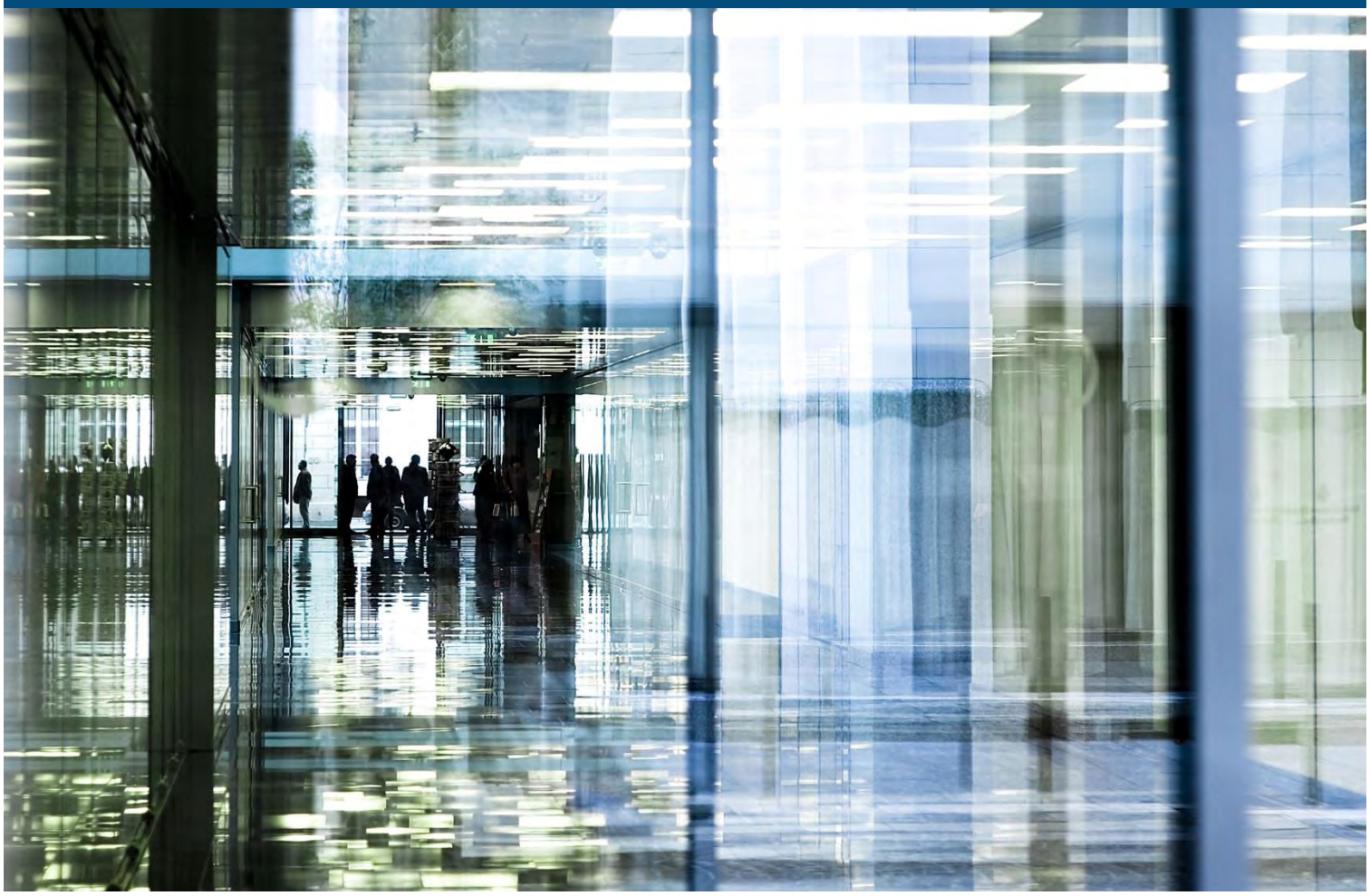
Massachusetts Health Insurance Reform

Impact on Insurance Markets, Pricing and Profitability - Executive Summary



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Executive Summary

SPONSOR Society of Actuaries

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Executive Summary

Structure of the Executive Summary:

- The first section is a discussion of the background to Massachusetts reform and the nine hypotheses that we analyzed for this study.
- In the next section we report the summary results of the nine hypotheses.
- We then move to a discussion of more detailed results by program: The Massachusetts reform resulted in establishment of two programs: Commonwealth Care (subsidized) and Commonwealth Choice (unsubsidized). In Section A, we compare cost and utilization in Commonwealth Care with Medicaid (MassHealth); in Section B we compare cost and utilization in Commonwealth Choice with Commercially insured lives; in Section C we compare cost and utilization of newly insured Commercial members with existing members.
- In Section D we discuss the cost of reform and the sources of funding.
- Finally in Section E we propose some lessons for states operating their own exchanges.

Background

Many years of bipartisan health insurance reform attempts in Massachusetts culminated with the passage of Chapter 58 of the Acts of 2006. Massachusetts had a relatively low number of uninsured prior to reform; after reform, which was widely supported, the uninsured rate dropped to the 2–3% range (although the exact percentage is the subject of dispute). Many of the features of the Massachusetts reform (expansion of Medicaid, individual mandate to purchase health insurance enforced with a penalty, risk-mitigation provisions for the participating insurers, subsidized coverage for low earners not eligible for Medicaid) were incorporated in the ACA. There were both some important structural differences and some that are more subtle:

- Unlike the unified approach of the ACA with its sliding scale of subsidies, Massachusetts implemented two separate programs: Commonwealth Care, a subsidized program for those citizens earning between 100% and 300% of the Federal Poverty Level (FPL), and unsubsidized Commonwealth Choice for citizens earning over 300% FPL.

- A new government body, the Massachusetts Health Insurance Connector Authority, was responsible for administering both programs. Access to insurance (subsidized and unsubsidized) was through a new website, www.mahealthconnector.org. The Connector Authority established minimum

creditable coverage, chose participating insurers and health plans that met certain quality standards (the "seal of approval") and determined the Affordability Schedule.

- MassHealth, the state's Medicaid program, was also expanded to some previously ineligible citizens (although subject to different income limits than the ACA).
- The ACA provides a continuously decreasing amount of subsidy as income increases. Subsidized Connector plans, however, provide a fixed subsidy by category (making the Massachusetts reform arguably easier to administer). Connector plans divide citizens into five income categories and determine contributions by category and geography (and later health plan).
- Although the Connector operated a system of risk mitigation through revenue transfers between plans (the "3 R's") that is similar in principle to the federal ACA version, there were some differences of specifics. For example, risk mitigation applied only to subsidized plans.

As we discuss in Chapter 1, the context in which Chapter 58 was implemented in Massachusetts was different from that of the ACA in most states. Massachusetts has historically had a high percentage of the population covered by insurance and a relatively robust (although complicated and confusing)[1] range of coverage for those eligible for Medicaid and other state support programs. For example, in 2006 (the last year prior to the introduction of the reform) U.S. Census data show that the national uninsured rate among the under-65 population was 17.1%, compared with 10.9% in Massachusetts.[2]

Eligibility for different programs is illustrated in Table E.1.

[1] The complicated benefit structure of MassHealth contributed to the difficulties programming the ACA-compliant website that the state designed to implement the ACA. In its first implementation of the ACA in 2010–2013, the Commonwealth attempted to build flexibility to encompass this complicated set of programs into its website, so that eligible citizens could enroll in both the exchange and MassHealth. The complicated enrollment algorithms proved the undoing of the website, and the first enrollment under the ACA in 2013 was completed largely manually. A second website was finally launched successfully in time for the 2016 enrollment season.

[2] See Table 1.2; for Medicaid programs available to different classes of beneficiaries, see Figure 1.9.

Table E.1 Key Features of Different Massachusetts Programs[3]

Program	Eligibility	Subsidized/ Unsubsidized	Benefit Plans	Administration
Commonwealth Choice	18+; Income > 300% FPL; no affordable ESI	Unsubsidized	Commercial; 3 benefit tiers (Gold/Silver/Bronze); contributory	Connector contracts with "seal of approval" Commercial insurers
Commonwealth Care	100% ≤ Income ≤ 300% FPL and not eligible for a MassHealth program	Subsidized (sliding scale)	Medicaid-type copayments; contributions vary by income category	Connector contracts with Medicaid Managed Care Organizations
MassHealth (Medicaid)	Income ≤ 100%; pregnant; children < 18 etc. (see Fig. 1.9)	Subsidized	Medicaid-type copayments; noncontributory	MassHealth (EOHHS) contracts with MMCOs and also administers Fee-for-Service program

The Nine Hypotheses

The objectives of this study were to analyze (to the extent possible with the available data) the following aspects of the financial and actuarial effects of reform:

1. Whether reform of the individual market **improved access and reduced cost** for individual insurance.
2. Whether reform of the individual market had a **negligible or possibly positive effect on the small group market** (premium rates and scope of benefit) following the merger of the two markets.
3. Whether mandating coverage to individuals **improved the risk pool in individual and small group markets as young or healthier adults who were previously uninsured** took up coverage.
4. Whether mandating coverage to individuals **increased the premium-paying pool of healthy previously uninsured lives** in the individual and small group pool.
5. Whether on balance the additional lives added to the pools **contributed more in premiums than the additional costs imposed**, resulting in a net decrease in premiums and possible better benefits (reduced out of pocket costs for care) for prior pool participants.
6. Whether standardizations of benefits helped **offset risk-selection among plans**.

[3] A glossary of abbreviations is provided at the end of this study.

7. Whether younger/healthier lives (under age 30) eligible for Young Adult Plans **subsidize the rest of the pool**.

8. The extent of the **change in premiums since reform** and whether this has reflected underlying changes in contractual arrangements with providers.

9. The extent to which previously uninsured members enrolled in subsidized plans reacted to changes in the relative prices of their insurance (i.e., their elasticity of response to changes in relative prices).

To analyze the effects of Massachusetts reform, we obtained detailed claims and eligibility data for Commercial and Connector insured members from the Massachusetts Health Care Quality & Cost Council (QCC)[4] and Medicaid data from Massachusetts Medicaid (MassHealth). We also obtained financial information about the performance of the Connector plans from the Connector Authority. Because we were unable to obtain premium or benefits information to analyze relationships between claims and premiums for Commercial plans, we were not able to address all our original objectives. Results of our analyses are summarized (by objective) in this Executive Summary.

Approval for the study protocol was obtained from the Georgetown University and Massachusetts Connector Institutional Review Boards.

Summary of Findings and Conclusions

Below, we address the nine objectives (hypotheses) of the study separately. Some analyses address more than one of the original objectives.

1. Hypothesis 1:[5] Reform of the individual market **improved access and reduced cost** for individual insurance.

   Result: The merger of the individual and small group markets simultaneously with the introduction of the Massachusetts Connector resulted in a reduction in individual market premiums.

[4] The Health Care Quality and Cost Council was eliminated by the state in response to the Affordable Care Act and replaced by the Center for Health Information and Analysis (CHIA). At the time of writing the legal status of the QCC's data is unclear.

[5] This study is organized around eight hypotheses as originally proposed to the Society of Actuaries, plus a subsequently added hypothesis about response to changes in member costs. The available data do not always allow us to draw conclusions on all hypotheses.

Discussion

A goal of the reform, one that became a guiding principle of the Connector Authority, was the simultaneous achievement of improved access to, and reduced cost of, care. Actuaries and others may consider these two goals as potentially contradictory: How can access increase without driving up the cost of insurance? Economic theory would suggest that without an increase in the supply of services, an insurance-promoted increase in demand for services will drive up prices. There is some evidence of this happening in Massachusetts, although we should note that state officials took a number of steps to control both prices and cost of insurance.

Our analysis of the Massachusetts data shows a significant increase in the numbers of newly insured lives: The authors' estimate of total new enrollment in Medicaid, the Connector's Commonwealth Care and Commonwealth Choice programs, and Commercial insurance amounts to approximately 540,000 lives. Almost half of this number enrolled in Medicaid coverage; 76% of the newly enrolled Medicaid lives enrolled in existing Medicaid categories for which the member was eligible prior to reform. Commonwealth Care enrolled 38% of the new lives, and the remaining 15% enrolled in Commercial coverage, split approximately evenly between the Connector channel and other (mainly employer) plans. The authors' data show approximately 3 million enrolled lives in Commercial insurance at year-end 2010 (the last year for which we have data). At this time, 40,000 members were enrolled through the Connector (5,209 of whom were in "Young Adult Plans").

The Connector exercised considerable influence over the market that it managed and funded (Commonwealth Care). This influence was not matched in the Commercial market, reflecting the Connector's low enrollment numbers.

Although the Connector achieved its primary mission of expanding coverage, it was less successful in its secondary mission of reforming the combined Small Group and individual market and reducing rates. For example, continued rate increases in the Commercial market after reform culminated in the intervention of the governor in the market in February 2010 to freeze rate increases. The administrative cost of the Connector was also non-negligible: While the more recent budgets are inflated by the resources needed to implement the ACA, budgets prior to the implementation of the ACA exceeded $40 million annually.

Table E.2a Newly Insured Populations as a Result of Massachusetts Reform

	Total Enrollment	
MassHealth[a]	252,000	
- Prereform categories		190,000
- Expansion categories		62,000
Commonwealth Care[b]	206,394	
Commonwealth Choice[b]	41,788	
- Nongroup		36,742
- Small Group		5,046
Other Commercial Enrollment[c]	42,212	
Total	542,394	

[a]At December 2010.

[b]At June 30, 2013.

[c]Authors' estimates using QCC data.

The highest enrollment achieved by the Connector (individual and small group) during the period for which we have data amounted to 43,734 (November 2012). Of this enrollment, nongroup (individual) amounted to 36,515, and group, 7,219. As a percentage of the total nongroup enrollment, the Connector's market share, while growing, only exceeded 10% in 2012. In Table E.2b, we show estimates of the total individual insurance enrollment in the state between 2008 and 2012, together with corresponding Connector enrollments and market share.

Table E.2b Connector Market Share: Individual (Commercial) Market

Year	Massachusetts Population ('000)	Individual %	Total Individual (Est.)	Commonwealth Choice (Indiv.)	Market Share: CC/Total
2012	5,584	4.6%	256,864	32,083	12.5%
2011	5,587	6.9%	385,503	31,578	8.2%
2010	5,595	5.8%	324,510	28,917	8.9%
2009	5,622	5.3%	297,966	19,559	6.6%
2008	5,533	4.0%	221,320	15,991	7.2%

Massachusetts population and individual market size are estimated from Health Insurance Historical Tables—HIB Series: US Census. http://www.census.gov/hhes/www/hlthins/ data/historical/HIB_tables.html. Connector enrollment data were supplied by the Connector; see Chapter 3. The number of nongroup insureds is higher than that reported in Gorman et al. [1] who reported 66,000 nongroup and 112,000 one-life small group members in a sample of 2005 enrollments.

2. Hypothesis 2: Reform of the individual market had a **negligible or possibly positive effect on the small group market** (premium rates and scope of benefit) following the merger.

   Results: The Connector's Exchange website offered Commonwealth Choice (unsubsidized) access to nine health plans and four (later five) Managed Care Organization health plans for Commonwealth Care. The Connector improved access to nongroup plans and provided education about health care choices and the ability to comparison shop. The website was so successful that it provided the model for healthcare.gov. Simultaneously with the launch of the Chapter 58 reforms, the state also merged the individual and small group markets. The merger reduced premiums for individual purchasers by 20–33% but raised premiums in the merged markets by 3.4%,[6] primarily impacting small employers.

3. Hypothesis 3: Mandating coverage to individuals initially **improved the risk pool in individual and small group markets as young or healthier adults who were previously uninsured** took-up coverage. However, younger/healthier lives (26 and under) eligible for Young Adult policies did not join in sufficient numbers to **subsidize the rest of the individual and small group pool**.

   Result: The population enrolling in both Commonwealth Care and Commonwealth Choice initially skewed younger than the state age distribution. Following the passage of the ACA extension of parent insurance to age 26, enrollment of younger members

[6] See Welch and Giesa [91].

in both programs fell, relative to older members, to the point where it is unlikely that younger members are providing a significant subsidy to either pool.

Discussion

The Commonwealth Care population represents a block for rating purposes; rates are established based on the experience of that program only. Commonwealth Choice members, on the other hand, are a small population within each carrier's larger merged market block. Within the Commonwealth Choice program the relatively older enrollment could tend to raise rates, although the enrollment is too small to affect this pool.

Table E.3 Commonwealth Care Enrollment by Age vs. Massachusetts Population

Fiscal Year	18–26	27–39	40–49	50+	Total
FY 2007	35.8%	20.9%	17.8%	25.5%	100.0%
FY 2008	29.1%	23.0%	19.6%	28.3%	100.0%
FY 2009	25.5%	23.5%	20.3%	30.7%	100.0%
FY 2010	25.8%	22.0%	19.5%	32.7%	100.0%
FY 2011	23.8%	22.0%	19.3%	34.9%	100.0%
FY 2012	19.3%	23.5%	19.6%	37.6%	100.0%
FY 2013	17.2%	24.9%	19.9%	38.0%	100.0%
Massachusetts Population*	19.90%	25.80%	23.30%	31.00%	100.00%

Table E.4 Commonwealth Choice Enrollment by Age vs. Massachusetts Population

Year	<18	18–26	27–34	35–44	45–54	55–64	65+	Total
December 2007	0.5%	26.8%	17.3%	22.6%	20.6%	12.0%	0.2%	100.0%
December 2008	0.4%	24.7%	16.8%	21.9%	22.1%	13.7%	0.4%	100.0%
December 2009	0.3%	24.8%	17.0%	20.0%	22.1%	15.5%	0.4%	100.0%
December 2010	0.4%	16.2%	17.0%	21.0%	26.9%	18.1%	0.5%	100.0%
December 2011	0.4%	8.6%	18.6%	22.1%	28.9%	21.0%	0.5%	100.0%
December 2012	0.3%	6.6%	19.1%	21.6%	29.7%	22.1%	0.6%	100.0%
June 2013	0.3%	5.9%	18.5%	21.7%	29.8%	23.3%	0.6%	100.0%
Massachusetts Population[a]	-	19.9%	15.9%	21.1%	24.1%	19.1%	-	100.0%

[a]Massachusetts Population 18–64, 2010 U.S. Census.

4. Hypothesis 4: The **previously uninsured** that took up coverage **were healthier than the previously insured, increasing the premium-paying pool of healthy previously uninsured lives** in the individual and small group pool.

Result: The effect of enrollment differs according to population and the risk profile of the newly insured, relative to the existing insureds and the pools' premium rates. Some groups were healthier than the previously insured; other groups appear to be less healthy and could potentially have the opposite effect on rates.

Discussion

Access to detailed claims data from the QCC allows us to apply risk adjustment[7] to the cost and utilization outcomes of each program.[8] Risk adjustment is a relatively new actuarial technique that allows populations to be compared based on their relative risk. "Relative risk" is calculated as a function of age, sex and conditions (diagnoses) present in the population. Risk adjustment allows us to compare quantities between two different populations with different risk profiles. Two models are used in this study: financial risk, in which the dependent variable is member cost (i.e., the model is predicting the relative cost of each member), and utilization risk, in which the dependent variable is a measure of utilization. Two models are used because financial and utilization risk are not necessarily the same, because of the relative costs of treatment of different conditions, the actual treatment received by the patient, the provider(s) that the patient uses, etc. Risk adjusting the populations (relative to the either the Commercial population or MassHealth population as the benchmark, depending on whether we are analyzing the unsubsidized or subsidized program, respectively) allows us to compare utilization and cost of each population relative to each other and to the respective benchmark populations.

Table E.5a Comparative Risk Scores for Newly Enrolled Members by Population

Commonwealth Care			Financial Risk Score		Utilization Risk Score	
Fiscal Year	Member Months	Mean Age	Comm Care	Mass Health	Comm Care	Mass Health
2007	711,203	42.9	1.020	1.917	0.627	1.266
2010	2,011,326	42.5	1.566	2.706	0.997	2.008
Annual Percentage Change			15.3%	12.2%	16.7%	16.6%

Commonwealth Choice			Financial Risk Score		Utilization Risk Score	
Fiscal Year	Member Months	Mean Age	Comm Choice	Comm-ercial	Comm Choice	Comm-ercial
2008	37,582	42.6	1.159	1.960	0.858	1.432
2010	167,268	40.8	0.816	1.521	0.558	1.088

[7] We used the DxCG Commercial condition-based concurrent risk adjuster from Verisk Health.
[8] Risk adjustment of cost measures is performed using the DxCG Financial risk model; risk adjustment of utilization measures is performed using the DxCG utilization model.

Annual Percentage Change	−16.1%	−11.9%	−19.4%	−12.8%

Commercial Newly Insured			**Financial Risk Score**		**Utilization Risk Score**	
Fiscal Year	**Member Months**	**Mean Age**	**Comm-ercial New**	**Comm-ercial**	**Comm-ercial New**	**Comm-ercial**
2007	1,317,118	50.3	2.349	1.716	1.449	1.214
2010	1,398,440	57.4	2.800	1.521	1.863	1.088
Annual Percentage Change			6.0%	−3.9%	8.7%	−3.6%

The effect of enrollment differs according to population and the risk profile of the newly insured, relative to the existing insureds and the pools' premium rates. Below, we report key measures of risk and cost from the Commonwealth Care and Commonwealth Choice programs and the Commercial newly insured members and compare these with the measures for the corresponding insured populations.

In Table E.5b we compare the risk-adjusted utilization and cost of three populations (CommCare, CommChoice and newly enrolled Commercial members) over time.

Table E.5b Comparative Utilization and Cost for Newly Enrolled Members by Population

Commonwealth Care	Comm Care	Mass Health	CommCare	Mass Health	Ratio CommCare/ MassHealth	
	Risk-Adjusted		Risk-Adjusted			
Fiscal Year	Inpatient /1,000	Inpatient /1,000	Total Net Paid Amount	Total Net Paid Amount	Inpatient /1,000	Total Net Paid Amount
2007	57.2	49.0	$ 219.40	$ 309.30	116.7%	70.9%
2010	98.2	40.5	$ 358.56	$ 370.74	242.5%	96.7%
Annual % Change	19.7%	−6.1%	17.8%	6.2%	27.6%	10.9%

Commonwealth Choice	Comm Choice	Comm-ercial	Comm Choice	Commercial	Ratio CommChoice/ Commercial	
	Risk-Adjusted		Risk-Adjusted			
Fiscal Year	Inpatient /1,000	Inpatient /1,000	Total Net Paid Amount	Total Net Paid Amount	Inpatient/ 1,000	Total Net Paid Amount
2008	62.9	84.4	$ 270.87	$ 226.86	74.5%	119.4%
2010	47.2	58.2	$ 229.68	$ 171.08	81.1%	134.3%
Annual % Change	−13.4%	−17.0%	−7.9%	−13.2%	4.3%	6.0%

Commercial Newly Enrolled	Comm New	Comm-ercial	Commercial New	Commercial	Ratio Commercial New/ Commercial	
	Risk-Adjusted		Risk-Adjusted			
Fiscal Year	Inpatient /1,000	Inpatient /1,000	Total Net Paid Amount	Total Net Paid Amount	Inpatient/ 1,000	Total Net Paid Amount
2007	89.5	84.7	$ 132.11	$ 211.51	105.7%	62.5%
2010	56.3	58.2	$ 84.51	$ 171.08	96.7%	49.4%
Annual % Change	−20.7%	−17.1%	−20.0%	−10.1%	−4.3%	−11.1%

5. Hypothesis 5: The balance of the additional lives contributed more in terms of premiums than the additional claims imposed.

   Result: We were able to study the relative **premiums and costs** of the Commonwealth Care population but not the Commercial populations (because we were unable to obtain premium revenue information). In aggregate over the seven years the Commonwealth Care Managed Care Organization (MCOs) experienced a loss of 0.5% of capitation payments after expenses that averaged 8.6% of capitation.

Discussion

The Commonwealth Care program was financially stable during the period Fiscal Year (FY) 2007–2013. The state paid approximately $4.8 billion in net capitation payments to participating MCOs, who experienced an average loss ratio of 91.3%. Over the seven-year period, MCOs (in aggregate) made a small profit in the early years, which became a loss after the Connector assumed a more aggressive contracting strategy in FY 2011. In aggregate over the seven years the MCOs experienced a loss of 0.5% of capitation payments after expenses that averaged 8.6% of capitation. It is important to note in this context that the Commonwealth Care block is a relatively small portion of the business that an MCO has with the state: The number of MCO Medicaid lives in the MassHealth program significantly exceeds its Commonwealth Care enrollment, allowing the MCO to tolerate small losses on Commonwealth Care to retain its MassHealth business.

Although the Connector operated a "3 R's" risk mitigation program (similar to that under the ACA) the net amount of stop-loss payments (premiums paid by plans less stop-loss reinsurance payments received by the plans) and Risk Corridor payments (referred to as Aggregate Risk Share) was small on an annual basis and in total. The Reinsurance program was designed to be self-sustaining, but some volatility (due to catastrophic claims) was to be expected. As it was, the reinsurance pool was relatively stable. Prospective Risk Adjustment of capitation rates was applied quarterly at the point that rates were paid to the MCO, so a retrospective Risk Adjustment reconciliation was unnecessary. The Risk Corridor program experienced the largest variation in experience, with large payments being allocated from one plan to another. The net amount of these payments may be seen in the line "Aggregate Net Share" in Table E.6. Aggregate Risk Share payments to/from individual plans are shown in Chapter 5.

Table E.6 Commonwealth Care (Subsidized) Program Financial Results 2007–2013

	$ Millions							
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
	Oct. 1,2006–June 30, 2007	July 2007–June 2008	July 2008–June 2009	July 2009–June 2010	July 2010–June 2011	July 2011–June 2012	July 2012–June 2013	Total
TOTAL								
Capitation	$ 129.4	$ 625.9	$ 806.3	$ 748.4	$ 805.0	$ 803.4	$ 863.3	$ 4,781.7
Net Stop-Loss	$ 0.1	$ 0.1	$ 0.2	$ 0.1	$ 0.0	$ (0.0)	$ (0.0)	$ 0.5
Revenue	$ 129.5	$ 626.0	$ 806.5	$ 748.5	$ 805.0	$ 803.4	$ 863.2	$ 4,782.2
Total Medical Costs	$ 111.1	$ 555.1	$ 693.6	$ 712.2	$ 722.4	$ 737.5	$ 860.1	$ 4,392.0
Expenses	$ 16.8	$ 55.3	$ 72.8	$ 58.3	$ 59.5	$ 67.5	$ 79.6	$ 409.8
Profit/(Loss)	$ 1.5	$ 15.6	$ 40.2	$ (22.0)	$ 23.0	$ (1.5)	$ (76.5)	$ (19.7)
Aggregate Risk Share	$ 0.3	$ (1.1)	$ (14.9)	$ 7.3	$ (9.9)	$ (0.5)	$ 15.4	$ (3.5)
Profit/loss after Risk Share	$ 1.8	$ 14.5	$ 25.3	$ (14.7)	$ 13.1	$ (2.0)	$ (61.1)	$ (23.1)
Expenses/Capitation	13.0%	8.8%	9.0%	7.8%	7.4%	8.4%	9.2%	8.6%
Profit (Loss)/ Capitation	1.4%	2.3%	3.1%	-2.0%	1.6%	−0.2%	−7.1%	−0.5%

6. Hypothesis 6: Standardization of benefits helped **offset risk selection among plans**.

   Result: Commonwealth Care offers only a single standard design, so consumers were able to choose an MCO but not benefit plan. Competition among MCOs resulted in varying member contributions because the Connector pegged contributions to the lowest capitation rate in a geographic area and charged members the difference between this premium and the MCO's premium. To the extent that variation in financial results of different MCOs was reduced this was likely the result of the 3 R's program rather than standardized benefits. The Connector standardized benefits to some extent in the Commonwealth Choice market, which resulted in a simpler shopping experience online. However, the Connector's block of enrollees was too small to affect Commercial rates.

   Discussion

   Competition among MCOs also resulted in significant swings in relative member contributions by MCO in different years. Members responded to changes in contributions by switching MCOs at open enrollment, although member response was less sensitive than has been reported in the literature for employee groups. We did not have benefit information for Commercial plans. Although the Connector attempted to

limit plan choices offered to Commonwealth Choice enrollees initially, the wider array of choices available directly from insurers outside of the Exchange, and the demands of the marketplace led, over time, to the Connector expanding its range of choices.

7. Hypothesis 7: Younger/healthier lives subsidized the remainder of the pool.

Result: There were insufficient numbers of **young adults** (particularly following passage of the ACA), and the pricing of Young Adult Plans was too low to **subsidize the Commercial pool**. Although Commonwealth Care plans were paid a capitation rate, these rates were effectively based on expected claims of the MCO's entire membership, so there was no "margin" in premiums of younger adults to subsidize older adult coverage.

Discussion

We performed additional analysis of the relative risk and utilization of the newly insured populations. In particular, we looked for evidence to test two competing hypotheses about the newly insured that have significant implications for the new ACA exchanges. One hypothesis, the "pent-up demand hypothesis" predicts that the newly insured will be relatively high users of services because of their pent-up demand due to years of foregoing services. An alternative hypothesis (which we name the "conservative consumer hypothesis") predicts that the newly insured will have *lower* utilization and cost than existing insured lives because they have had to be conservative users of medical services while uninsured.[9]

- The Commercial populations (Commonwealth Choice and new-entrant Commercial members) provide some support for the conservative consumer hypothesis. For example, despite being between 12 and 13 years older, and having a higher average risk score than the existing Commercially insured block, new entrant Commercial members use fewer services (on a risk-adjusted basis). The same is true of inpatient utilization (at least initially) of the Commonwealth Choice block, although by 2011 the utilization of Commonwealth Choice was similar to that of other Commercial members. The Commonwealth Care population, by contrast, demonstrates clear pent-up demand. The unsubsidized (and therefore more affluent) populations are the ones that appear to have been conservative consumers—these consumers *could* have afforded to purchase insurance prior to the mandate but chose not to for whatever reason. The Commonwealth Care population, which by definition could not afford to purchase insurance, is a heavy user of services once they

[9] We associate this hypothesis with Prof. Jon Gruber of the Massachusetts Institute of Technology, who first brought it to our attention.

have access.

Overall, we conclude that there is support in the data for both hypotheses; some populations in some years show evidence of conservative utilization; other populations show evidence of pent-up demand. The numbers are, however, volatile on a year-by-year basis. Table E.7a provides a broad guide to the findings by program; the reader should consult the analysis of each program for the specifics, however.

Table E.7a Population Utilization and Cost, vs. Comparison Population, Risk-Adjusted Basis

n		Utilization			
Population	Comparison Population	Inpatient	Emergency Room	PCP	Cost
Commonwealth Care	MassHealth	>>	initially = incr. to >	>>	Initially < incr. to =
Commonwealth Choice	Commercial	<	>	=	> Incr. to >>
Newly enrolled Commercial	Commercial	=	<	<	<

Legend: >>: Population numbers are considerably higher than Comparison Population
>: Population numbers are higher than Comparison Population.
=: Population numbers are approximately equal to Comparison Population.
<: Population numbers are lower than Comparison Population.

8. Hypothesis 8: **Changes in premiums since reform** may reflect underlying changes in contractual arrangements with providers

   Result: We do not have data on provider contracts. To the extent that changes have occurred, these may be a consequence of the Connector's more active contracting policy after 2011.

   Discussion

   The Connector had authority to contract with MCOs for the Commonwealth Care plan, and its active management of the procurement process resulted in moderate rate increases and, in recent years, decreases in rates. In the first year of the program the

rates were established actuarially based on MassHealth (Medicaid) experience, and thereafter in the first few years of the program certified as being actuarially sufficient. This resulted in rates that were based on the prior year's experience, trended. With the exception of 2010, this methodology resulted in increasing rates. After 2011 the Connector changed its contracting policy and encouraged competitive bids. The effect of this change is seen in the 2012–2013 rates. Table E.7b shows that between FY 2007 and FY 2013 rates increased by only 0.6%. The Connector's active procurement process resulted in a decrease in average capitation rates of 16.5% between FY 2011 and FY 2013.

Table E.7b Average Commonwealth Care Capitation Rates FY 2007–2013

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Capitation Rate	$354.07	$351.62	$400.70	$396.36	$426.71	$403.95	$356.21
Rate Trend		−0.7%	14.0%	−1.1%	7.7%	−5.3%	−11.8%

Hypothesis 9: Members reacted to changes in the relative prices of different subsidized plans by moving to lower-cost plans.

Result: We analyzed Elasticity of Response of Member Choice to Changes in Premiums (Commonwealth Care). Premiums in the Commonwealth Care (subsidized) program were changed annually at July 1, and members were eligible to move to a different plan at this date; a number of members migrated each year. We quantified the effect of this premium-induced switching behavior and estimated the elasticity of response[10] to changes in member contributions. We find elasticity at −0.21 in 2013 to be somewhat lower than previous studies of employer populations, which is in the range of −0.30 to −0.60.

Discussion

The Massachusetts mandate was unique at the time (so being uninsured was not an option), and members were able to choose an insurer but not a benefit plan. Thus a study of migration in Massachusetts is uniquely able to quantify the effect of price (contribution rates) on member switching behavior. We find elasticity at −0.21 in 2013 to be somewhat lower than previous studies of employer populations. Elasticity for some plans (Neighborhood Health,

[10] Elasticity of response to a change in price is defined as $\frac{\partial y / y}{\partial p / p}$ or the relative change in enrollment (y) divided by the relative change in price.

CeltiCare and Fallon) is not significantly different to zero. Overall, elasticity has also been increasing with time, perhaps indicating increasing comfort on the part of the newly insured with the insurance process and a willingness to seek out lower-cost options. There are no studies, to our knowledge, of elasticity of demand within government programs. The closest similar studies are those performed on employee choice within benefits plans. Prior studies of employer populations have estimated higher elasticities in the range -0.3 to -0.6. The data contained a number of outliers in terms of both changes in contributions and percentage of members switching plans. The effect of outliers was moderated by the use of a robust regression model for analysis, leading us to question whether previous studies may have been affected by outliers, resulting in overestimates of the elasticities.

Summary of Results by Program

- Commonwealth Care member cost is initially lower than that of Medicaid members, although cost increases over time. On a risk-adjusted basis, once the Commonwealth Care population matures, the costs of the two populations are almost the same, supporting the Conservative consumer hypothesis.
- The small Commonwealth Choice population uses relatively costly inpatient and physician services at a lower rate than the Commercial population as a whole, tending to support the Conservative consumer hypothesis. The newly insured use about the same amount of emergency room and prescription services as those with a history of insurance. On a risk-adjusted basis the cost of the Commonwealth Choice population exceeds that of the Commercially insured block, supporting the pent-up demand hypothesis.
- New entrants within the Commercial block (those that obtain insurance through an employer or directly from an insurer) in each year are older than the existing Commercial members; they are also increasing in age over time (while the age of existing Commercial members remains relatively stable). The age/gender risk score for the Commercial new entrants is higher than that of the existing members, as is the Condition Risk/Age-Sex Risk ratio, which suggests that the new entrant population has a higher disease burden in some years. This conclusion is counter to the relative cost of the new entrant cohort, which (despite its higher disease burden) is lower than that of the existing members, supporting the Conservative consumer hypothesis.

A. The Commonwealth Care Program (Subsidized Coverage)

A.1. Experience of the Commonwealth Care Program

The Connector controlled the Commonwealth Care program and Capitation rates paid to MCOs reflected the experience of the population. As we have already noted, enrollment initially skewed heavily younger. With the passage of the ACA, many of the previously insured young people found coverage elsewhere (for example, on a parent's plan), and the younger age categories (under 39) are now underweighted in Commonwealth Care relative to the state age distribution. We would expect the rise in the average age of the Commonwealth Care group to increase the average risk of this population and therefore their average claims and premiums. Between FY 2007 and FY 2011 (the last year for which we have detailed data that allow us to calculate risk scores) the average DxCG risk score for the Commonwealth Care population increased significantly (+48.6%). All things being equal we would expect the claims and therefore capitation rates to follow the average risk of the population.

Table E.8 Average DxCG Condition risk of Commonwealth Care Population

Fiscal Year	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Average DxCG risk score	1.020	1.137	1.455	1.556	1.516	N/a	N/a

A.2. Utilization and Cost within the Commonwealth Care Program

Detailed claims data allowed us to analyze service cost and utilization on both an unadjusted and risk-adjusted basis, for the Commonwealth Care program between FY 2007 and FY 2011 (through Calendar Year-end 2010). All Commonwealth Care members are by definition newly enrolled in that program (although they could have had insurance previously from another source); we compare their utilization to that of the existing MassHealth population. Utilization (inpatient admissions, emergency room visits, primary care physician visits/1,000, total scripts, generic percentage and total days' supply per member) is reported for the Commonwealth Care population, compared with the MassHealth (Medicaid) population.

Table E.9 Commonwealth Care Program Utilization Compared with MassHealth—Unadjusted

Commonwealth Care							MassHealth					
Fiscal Year	Risk Score	IP/1,000	ER/1,000	PCP/1,000	Rx Scripts/ Member	Generic Rx	Risk Score	IP/1,000	ER/1,000	PCP/1,000	Rx Scripts/ Member	Generic Rx
2007	1.020	28.3	232.1	864.9	0.5	86.7%	1.917	49.0	465.7	1,549.9	1.0	85.0%
2008	1.137	38.8	295.6	1,193.3	0.8	87.5%	1.950	50.2	479.1	1,535.7	1.1	85.1%
2009	1.455	46.7	335.0	1,309.6	0.9	87.6%	2.267	42.0	533.9	1,566.2	1.2	85.3%
2010	1.556	48.8	341.5	1,378.1	1.0	87.9%	2.706	40.5	550.4	1,603.3	1.3	85.5%
2011[11]	1.516	45.4	329.9	1,311.4	0.5	88.5%	2.798	42.0	532.8	1,492.6	0.7	86.1%
Comparison (National)		43.2	567.6	2,227.4	n/a	n/a		43.2	567.6	2,227.4	n/a	n/a

Utilization of Commonwealth Care members was initially low and increased rapidly, to the point where inpatient admissions/1,000 exceeded that of the MassHealth population in later years. The Commonwealth Care population uses somewhat fewer primary care provider (PCP) services and significantly fewer ER services. However, the relative risk profiles of the two populations are sufficiently different, and on a risk-adjusted basis a different picture emerges—one in which the newly enrolled Commonwealth Care population is a heavier utilizer of all services than the MassHealth population.

A similar picture emerges from an analysis of cost per member per month: Table E.11 shows that Commonwealth Care member cost is initially lower than that of Medicaid members, although it increases over time. On a risk-adjusted basis, once the Commonwealth Care population matures, the costs of the two populations are almost the same.[12]

Table E.10 Commonwealth Care and MassHealth Utilization[13]—Risk-Adjusted

Commonwealth Care		Risk-Adjusted			MassHealth			
Fiscal Year	Risk Score	IP/1,000	ER/1,000	PCP/1,000	Risk Score	IP/1,000	ER/1,000	PCP/1,000
2007	0.627	57.2	468.9	1,747.1	1.266	49.0	465.7	1,549.9
2008	0.687	75.5	575.0	2,321.4	1.336	50.2	479.1	1,535.7
2009	0.903	85.4	612.5	2,394.1	1.650	42.0	533.9	1,566.2
2010	0.997	98.2	687.4	2,773.8	2.008	40.5	550.4	1,603.3
2011	0.971	97.9	711.8	2,830.0	2.096	42.0	532.8	1,492.6

[11] Note that data for FY 2011 are through December 2010, i.e., a half-year.
[12] It is not technically correct to risk-adjust the member cost-sharing amount. However, for the MassHealth and Commonwealth Care programs member cost sharing is very low, and we have risk-adjusted the cost sharing to allow readers to compare the net paid claims of the two populations.
[13] For this table, as with other utilization tables, the DxCG utilization risk model has been used.

Between 2007 and 2011the average risk scores of both the Commonwealth Care and MassHealth populations increase significantly, at a compound annual rate of 11.6% (Commonwealth Care) and 13.4% (MassHealth). As Table E.5a shows, enrollment in Commonwealth Care increased at an annual rate of 41% between 2007 and 2010; MassHealth enrollment actually fell slightly between 2007 and 2010, although with new enrollments as a result of Chapter 58, the reduction was due to churn in the underlying population. With regard to the increase in average risk of the Commonwealth Care population, some of this is likely due to enrollment of more-risky lives later, and some due to the increase in identified conditions in the newly enrolled over time. Differentiating between the two is possible but outside the scope of this study. The newly enrolled MassHealth population is difficult to identify because of churn; the 2007 cohort is analyzed in Chapter 6. This cohort represents a small fraction of the overall MassHealth population and so is unlikely to influence the average risk score much. The increase in risk score for the MassHealth population is therefore more likely to be due to increased services generating more recorded conditions. Once again further analysis is outside the scope of this study.

In the MassHealth population for 2009–2010 there is some evidence of reduced utilization (inpatient admissions are 16% lower in 2009 than 2008 and fall further in 2010). A reviewer has suggested that this may be due to the effect of the recession that was experienced, beginning in 2008. Whatever is causing the decline in inpatient admissions, it did not appear to affect ER or PCP utilization; nor did it reduce the increasing trend in utilization in the Commonwealth Care population. The evidence for the potential effect of the recession on utilization is much stronger in the Commercial populations (see Table E.14 and Figures 6.3a and 6.3b).

Table E.11 Commonwealth Care Cost Compared with MassHealth (Unadjusted and Risk-Adjusted)[14]

CommCare

FY	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	711,203	42.9	n/a	$139.36	$4.87	$134.49	$120.16	$3.42	$116.74	$19.20	$1.44	$17.75
2008	2,309,819	43.0	n/a	$208.38	$8.55	$199.83	$176.71	$5.49	$171.22	$31.68	$3.07	$28.61
2009	2,175,009	43.1	n/a	$249.22	$10.62	$238.60	$208.60	$5.88	$202.72	$40.62	$4.74	$35.88
2010	2,011,326	42.5	n/a	$251.75	$9.95	$241.80	$210.91	$4.73	$206.18	$40.84	$5.21	$35.62
2011	955,660	42.0	n/a	$228.99	$7.88	$221.12	$209.49	$5.14	$204.35	$19.50	$2.73	$16.77

MassHealth

FY	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	13,706,431	36.3	n/a	$386.46	$29.44	$357.03	$337.68	$28.39	$309.30	$48.78	$1.05	$47.73
2008	14,207,179	35.3	n/a	$415.95	$34.83	$381.12	$367.94	$33.66	$334.28	$48.01	$1.17	$46.84
2009	14,165,600	34.6	n/a	$440.05	$41.80	$398.25	$388.09	$40.34	$347.75	$51.96	$1.46	$50.50
2010	13,409,365	34.3	n/a	$496.49	$58.06	$438.43	$426.98	$56.24	$370.74	$69.51	$1.82	$67.69
2011	6,543,438	34.2	n/a	$468.94	$61.67	$407.27	$434.07	$60.53	$373.54	$34.87	$1.14	$33.73

CommCare Risk Adjusted

FY	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	711,203	42.9	n/a	$261.91	$9.14	$252.76	$225.83	$6.43	$219.40	$36.08	$2.71	$33.36
2008	2,309,819	43.0	n/a	$357.38	$14.67	$342.72	$303.06	$9.41	$293.65	$54.33	$5.26	$49.07
2009	2,175,009	43.1	n/a	$388.30	$16.55	$371.76	$325.01	$9.16	$315.85	$63.29	$7.39	$55.91
2010	2,011,326	42.5	n/a	$437.81	$17.30	$420.51	$366.79	$8.23	$358.56	$71.02	$9.07	$61.95
2011	955,660	42.0	n/a	$422.64	$14.54	$408.10	$386.64	$9.49	$377.15	$35.99	$5.04	$30.95

A.3. Implications for Rating

Initially the Commonwealth Care population was relatively low risk and low utilizing, as reflected in the gain/(loss) analysis in the early years. Risk and utilization both increased rapidly to the point that, on a risk-adjusted basis, the Commonwealth Care population utilization exceeded that of the Medicaid population. Following losses in FY 2010 the Connector contracted more aggressively with MCOs, favoring the lowest-cost plan in a geographic region. We do not have data on MCO provider

[14] Costs of the Commonwealth Care population are adjusted to the same risk basis as the MassHealth population by multiplying by the ratio MassHealth Risk Score/Commonwealth Care Risk Score. For financial comparisons, the DxCG Financial (Cost) risk-adjuster was used.

contracting strategies, but it is reasonable to assume that the reductions in capitation rates were shared with providers.

B. The Commonwealth Choice Program (Unsubsidized Coverage)

Although the Connector Authority met a number of its policy and business objectives through the Commonwealth Choice (unsubsidized) program (Consumer education, improved shopping experience), it did not become the distribution channel of choice for buyers and sellers of nongroup and small group coverage because it was never able to establish more than a small degree of penetration of the small group market, and its total Commercial enrollment was small.

Table E.12a Enrollment in Commonwealth Choice by Year and by Plan Tier

Year	Gold	Silver	Bronze	YAP[a]	Total
December 2007	926	3,135	6,590	3,002	13,653
December 2008	1,370	4,835	7,851	3,739	17,795
December 2009	1,503	6,376	9,469	4,687	22,035
December 2010	3,084	14,710	17,072	5,209	40,075
December 2011	3,277	14,255	20,935	2,865	41,332
December 2012	3,315	14,184	23,360	2,260	43,119
June 2013	3,271	13,784	22,787	1,946	41,788

[a]Young Adult Plans available to citizens 26 and under.

Table E.12b Metallic Tier Share of Enrollment in Commonwealth Choice by Year

Year	Gold	Silver	Bronze	YAP	Total
December 2007	6.8%	23.0%	48.3%	22.0%	100.0%
December 2008	7.7%	27.2%	44.1%	21.0%	100.0%
December 2009	6.8%	28.9%	43.0%	21.3%	100.0%
December 2010	7.7%	36.7%	42.6%	13.0%	100.0%
December 2011	7.9%	34.5%	50.7%	6.9%	100.0%
December 2012	7.7%	32.9%	54.2%	5.2%	100.0%
June 2013	7.8%	33.0%	54.5%	4.7%	100.0%
Average Growth Rate	2.6%	6.8%	2.2%	−24.6%	

Tables E.12a and E.12b show the plan (metallic tier) choices made by those members who enrolled through the Connector. Enrollment in the highest (Gold) and lowest (Bronze) tiers has remained relatively stable, growing at less than 2%

annually. The Silver tier is the most popular choice, growing at an annual rate of over 6%.

Despite its advantages in the market, the Connector had at least one disadvantage: Although it was able to risk-adjust premiums and transfer revenue between MCOs in the Commonwealth Care program, it did not have this role in the Commercial market. With a maximum enrollment of only 43,119 members, spread among nine insurers, the Connector had limited market influence other than its regulatory authority. It was able to influence plan design through the "Seal of Approval" program, under which only plans that met certain value criteria relative to price were offered on the Exchange. Over time the Connector gradually increased the number and range of plans offered on its "shelf," in response to market demand for more choice and flexibility, particularly from employers.[15] The Connector's inability to influence market pricing meant that it could not offer more favorable terms than the insurers whose products it sold, which in turn limited its market penetration.

One of the innovative ideas introduced by the Connector—the Choice program—was unsuccessful and was subsequently terminated. The Connector had reason to assume that the Choice program would be a success: It was modeled on the highly successful federal employee benefit program. This program allowed the employer to offer a fixed (although age-adjusted) contribution to employees who could then choose between different plans at a given metallic level. Despite its theoretical appeal, maximum enrollment reached only 388 lives.

Why the Connector was not more successful at attracting Commercial lives, reengineering the market, and in particular reducing premiums is open to debate. In part, Massachusetts may have been a victim of its own success with a comparatively high percentage of its population covered by insurance prior to reform. In this environment, the introduction of a new distribution channel meant that the Connector would largely have had to gain market share from other Commercial intermediaries. The power of the existing market participants and the lack of the type of subsidies available through the ACA for Commercial purchasers meant that the Connector made only small gains in the Commercial market.

[15] Following the introduction of the ACA, Massachusetts consumers were offered a broader range of plans than before because the ACA plan ranges are Platinum, Gold, Silver, and Bronze, versus the Massachusetts range of three designs (Gold, Silver, and Bronze). The Massachusetts plan range maps (approximately) to Platinum, Gold, and Silver benefits under the ACA. The ACA introduced a new plan range: Bronze. Significantly, approximately 40% of initial enrollments in the new ACA-compliant exchange were in the "new" Bronze plan range, indicating that there was some unmet demand for a lower-value plan under the former Connector design.

B.1. Utilization and Cost within the Commonwealth Choice Program

In terms of unadjusted utilization, the small Commonwealth Choice population uses relatively costly inpatient and physician services at a lower rate than the Commercial population as a whole, tending to support the Conservative consumer hypothesis. The newly insured use about the same amount of ER and prescription services as those with a history of insurance. However, the Commonwealth Choice population is considerably lower-risk than the Commercial population. On a risk-adjusted basis the utilization picture changes.

Table E.13 Commonwealth Choice (Unsubsidized) Utilization vs. Massachusetts All-Commercial Insureds—Unadjusted

Commonwealth Choice						Commercial* (with BCBSMA ASO Removed)				
FY	IP/1,000	ER/1,000	PCP/1,000	Rx Scripts/ Member	Generic Rx	IP/1,000	ER/1,000	PCP/1,000	Rx Scripts/ Member	Generic Rx
2007	-	-	-	-	-	84.7	184.9	1,199.80	1.4	88.70%
2008	37.7	162.5	748.4	1.3	88.90%	84.4	186.6	1,210.80	1.5	86.90%
2009	24.2	98.8	460.9	1.7	89.60%	56.2	131.1	881.1	1.6	89.30%
2010	24.2	90	392.4	1.8	90.20%	58.2	128.6	856.7	1.7	89.80%
2011	45.2	128.8	689.8	1	90.00%	73.8	140.5	1,235.50	0.9	90.10%
National Comparison	66	191	2,427.70	n/a	n/a	66	191	2,427.70	n/a	n/a

Table E.14 Commonwealth Choice Utilization vs. Commercial (Utilization Risk-Adjusted)[16]

Commonwealth Choice					Commercial* (with BCBSMA ASO Removed)			
Fiscal Year	Risk Score	IP/1,000	ER/1,000	PCP/1,000	Risk Score	IP/1,000	ER/1,000	PCP/1,000
2007	-	-	-	-	1.214	84.7	184.9	1,199.8
2008	0.858	62.9	271.2	1,249.1	1.432	84.4	186.6	1,210.8
2009	0.668	41.0	167.4	781.0	1.132	56.2	131.1	881.1
2010	0.558	47.2	175.5	765.1	1.088	58.2	128.6	856.7
2011	0.952	77.5	220.9	1,183.2	1.633	73.8	140.5	1,235.5

On a risk-adjusted basis, inpatient utilization in the Commonwealth Choice population is initially lower than that of the Commercial population, although by

[16] Risk adjustment using the DxCG utilization model.

2011 utilization has increased to be comparable. PCP service utilization is comparable, but the Commonwealth Choice population uses significantly more ER services than the comparable Commercial population.

On a risk-adjusted basis the cost of the Commonwealth Choice population exceeds that of the Commercially insured block.[17]

Above, we noted an apparently weak effect of the recession of 2008–2009 on demand for health care services and utilization. Evidence for the effect of the recession on the Commercial blocks is stronger: Utilization of all services falls between 35% and 40% in the Commonwealth Choice population, and by slightly smaller amounts in the Commercial block. By 2011, as the recession was ending, utilization was returning to close to its prerecession levels.

[17] We do not have information on benefit differences or unit prices, which could also influence this result.

Table E.15 Commonwealth Choice[18] (Unsubsidized) Cost vs. Commercial

Comm Choice

FY	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	-	-	-	-	-	-	-	-	-	-	-	-
2008	37,582	42.6	55.5%	$833.38	$630.29	$203.09	$774.26	$614.09	$160.17	$59.12	$16.20	$42.92
2009	90,082	41.8	52.0%	$543.82	$376.58	$167.24	$473.70	$355.34	$118.36	$70.11	$21.24	$48.87
2010	167,268	40.8	52.4%	$215.67	$46.21	$169.46	$148.17	$24.95	$123.22	$67.50	$21.26	$46.24
2011	80,514	41.2	51.7%	$314.66	$48.44	$266.22	$274.37	$39.21	$235.17	$40.29	$9.23	$31.06

Commercial* With BCBSMA ASO lives removed

FY	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	33,217,502	42.6	47.5%	$307.53	$45.89	$261.64	$246.78	$35.27	$211.51	$60.75	$10.62	$50.13
2008	32,577,385	42.2	47.5%	$327.61	$47.40	$280.21	$263.44	$36.58	$226.86	$64.18	$10.82	$53.36
2009	30,018,412	41.6	46.9%	$260.66	$39.17	$221.49	$193.72	$25.63	$168.09	$66.95	$13.55	$53.40
2010	29,057,070	40.8	47.1%	$251.44	$25.31	$226.13	$184.00	$12.93	$171.08	$67.43	$12.38	$55.05
2011	10,981,720	42.1	47.3%	$268.98	$24.40	$244.57	$233.67	$18.78	$214.89	$35.31	$5.63	$29.68

CommChoice Risk Adjusted

FY	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	-	-	-	-	-	-	-	-	-	-	-	-
2008	37,582	42.6	55.5%	$1,409.35	$1,065.89	$343.45	$1,309.36	$1,038.49	$270.87	$99.98	$27.40	$72.58
2009	90,082	41.8	52.0%	$906.36	$627.63	$278.73	$789.51	$592.23	$197.27	$116.86	$35.40	$81.45
2010	167,268	40.8	52.4%	$402.00	$86.13	$315.87	$276.18	$46.50	$229.68	$125.82	$39.63	$86.19
2011	80,514	41.2	51.7%	$518.49	$79.82	$438.67	$452.10	$64.60	$387.50	$66.39	$15.22	$51.17

C. Commercial Insurance (Unsubsidized)

C.1 Relative Risk and Cost of New and Existing Commercial Members

We identified a cohort of newly enrolled lives at January 1, 2007, by comparing the Commercially enrolled population at December 2006 with the same population at January 1, 2007; any member who was not in the database at December 31, 2006, is deemed to be newly enrolled. This date saw a net gain of 84,000 newly insured lives in Commercial insurance. This number comprised a reduction of 143,000 members from December 2006 whose Commercial coverage did not continue and a total of 227,000 newly enrolled Commercially insured lives with no prior history. The mandate was not effective until July 1, 2007 (and the penalty was only assessed at year-end 2007), so there may have been additional new entrants later than January

[18] Member cost in the first two years appears to be inconsistent with subsequent years; we note that the number of members covered in these two years is low. The data do not allow us to explore further what is causing these anomalous observations.

2007. The Commercial enrollment at July 1, 2007 (3.433 million) is slightly lower than the enrollment at January 1, 2007 (3.436 million), whereas that at December 31, 2007, is only marginally higher than that of January 1, 2007 (3.455 million).

Therefore, in constructing a cohort of newly enrolled members for the purpose of analyzing utilization and experience, it is reasonable to identify the new entrants at January 2007. Available data allow us to calculate comparative DxCG risk scores to assess the risk of the new entrants, relative to that of existing members. Significantly, the new entrants in each year are older than the existing Commercial members; they are also increasing in age over time (while the age of existing Commercial members remains relatively stable). The age/gender risk score for the Commercial new entrants is higher than that of the existing members; the relativity (between 27% and 55% higher) reflects the higher average age of the new entrant cohort. The Condition Risk/Age-Sex Risk ratio is also higher than that of the existing members, which suggests that the new entrant population has a higher disease burden in some years. This conclusion is counter to the relative cost of the new entrant cohort, which (despite its higher disease burden) is lower than that of the existing members.

Table E.16 Relative Financial Risk of New and Existing Commercial Members

Fiscal Year	New Entrants Financial Risk Scores				Existing Member Financial Risk Scores				New Entrant/ Existing Age/Sex Ratio	New Entrant/ Existing Risk Ratio
	Commercial Cohort				Commercial Cohort					
	Mean Age	Age/Sex	Condition	Ratio	Mean Age	Age/Sex	Condition	Ratio		
2007	50.3	1.667	2.349	1.409	42.6	1.313	1.716	1.306	1.270	1.369
2008	51.8	1.731	2.501	1.445	42.2	1.304	1.960	1.503	1.327	1.276
2009	54.5	1.854	2.480	1.338	41.6	1.288	1.605	1.246	1.439	1.545
2010	57.4	1.987	2.800	1.409	40.8	1.263	1.521	1.204	1.573	1.841
2011	58.8	2.053	3.378	1.645	42.1	1.321	2.180	1.650	1.554	1.550

The relative risk/disease burden and utilization of the newly enrolled population is higher than that of the existing population. On an adjusted basis, inpatient utilization of the newly enrolled Commercial population is similar to that of the existing Commercial population. Both PCP and ER utilization is lower in the newly enrolled program, however, suggesting that this population is a more conservative utilizer of care.

Table E.17 Comparative Adjusted Utilization of New and Existing Commercial Members

	Commercial Newly Enrolled					Commercial (with BCBSMA ASO Removed)				Commercial Newly Enrolled Risk Adjusted[19]		
Fiscal Year	Mem. Mos.	Risk Score	IP/ 1,000	ER/ 1,000	PCP/ 1,000	Risk Score	IP/ 1,000	ER/ 1,000	PCP/ 1,000	IP/ 1,000	ER/ 1,000	PCP/ 1,000
2007	227,886	1.449	106.9	103.5	1,097.7	1.214	84.7	184.9	1,199.8	89.5	86.7	919.4
2008	207,613	1.573	98.3	107.0	1,172.2	1.432	84.4	186.6	1,210.8	89.5	97.4	1,067.5
2009	172,006	1.561	75.4	71.2	975.0	1.132	56.2	131.1	881.1	54.7	51.6	707.0
2010	124,232	1.863	96.4	70.4	1,087.0	1.088	58.2	128.6	856.7	56.3	41.1	634.8
2011	107,379	2.381	100.2	87.0	1,576.7	1.633	73.8	140.5	1,235.5	68.7	59.7	1,081.5

On a risk-adjusted basis the cost of the newly insured Commercial population is for the most part lower than that of the Commercial population as a whole. The cost of the newly insured population is also lower than the existing insured, significantly so when the costs are risk-adjusted. These results are very consistent with the Conservative consumer hypothesis: These members represent a population that, for whatever reason (cost, absence of employer-sponsored health care), did not choose to purchase insurance prior to the Massachusetts mandate. (Their relative age, coupled with the modified community rating prevalent in Massachusetts and the rates in the nongroup market prior to the merger with the small group market, would have resulted in rates that were relatively high for these members.) The newly insured population is older than the existing insured block and higher risk. Once this population is covered by insurance, however, their relatively low utilization (and cost) persists, in contrast to the experience of other populations (Commonwealth Care and Commonwealth Choice, both of whose costs grew rapidly once they obtained insurance coverage). Overall, it is reasonable to hypothesize that this population contributes more in terms of premiums than it uses in services, but since the dataset lacks premium information, this hypothesis is untestable.

[19] Using the DxCG utilization model.

Table E. 18 Comparative Cost of 2007 Newly Insured Cohort and Existing Commercial Population

Enrollment and Cost of Newly-insured Cohort, Commercial 2007

FY	Members	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	227,886	1,317,118	50.3	45.9%	$233.17	$37.01	$196.16	$214.17	$33.32	$180.84	$19.00	$3.69	$15.32
2008	207,613	2,283,184	51.8	45.6%	$251.11	$41.97	$209.14	$230.31	$38.23	$192.09	$20.80	$3.75	$17.05
2009	172,006	1,801,671	54.5	44.9%	$183.55	$28.35	$155.19	$164.99	$24.99	$140.00	$18.55	$3.36	$15.19
2010	124,232	1,398,440	57.4	44.3%	$181.17	$12.46	$168.71	$165.29	$9.72	$155.57	$15.88	$2.74	$13.14
2011	107,379	616,450	58.8	44.1%	$192.60	$11.44	$181.16	$186.12	$10.40	$175.72	$6.48	$1.04	$5.44

Commercial* With BCBSMA ASO lives removed

FY	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	33,217,502	42.6	47.5%	$307.53	$45.89	$261.64	$246.78	$35.27	$211.51	$60.75	$10.62	$50.13
2008	32,577,385	42.2	47.5%	$327.61	$47.40	$280.21	$263.44	$36.58	$226.86	$64.18	$10.82	$53.36
2009	30,018,412	41.6	46.9%	$260.66	$39.17	$221.49	$193.72	$25.63	$168.09	$66.95	$13.55	$53.40
2010	29,057,070	40.8	47.1%	$251.44	$25.31	$226.13	$184.00	$12.93	$171.08	$67.43	$12.38	$55.05
2011	10,981,720	42.1	47.3%	$268.98	$24.40	$244.57	$233.67	$18.78	$214.89	$35.31	$5.63	$29.68

Enrollment and Cost of Newly-insured Cohort, Commercial 2007 (Risk-adjusted)

FY	Members	Member Months	Mean Age	% Male	Total Allowed Amount	Total Member Amount	Total Net Paid Amount	Medical Allowed Amount	Med Member Amount	Med Net Paid Amount	Rx Allowed Amount	Rx Member Amount	Rx Net Paid Amount
2007	227,886	1,317,118	50.3	45.9%	$170.34	$27.04	$143.30	$156.46	$24.34	$132.11	$13.88	$2.70	$11.19
2008	207,613	2,283,184	51.8	45.6%	$196.79	$32.89	$163.90	$180.49	$29.96	$150.54	$16.30	$2.94	$13.36
2009	172,006	1,801,671	54.5	44.9%	$118.79	$18.35	$100.44	$106.78	$16.17	$90.60	$12.01	$2.17	$9.83
2010	124,232	1,398,440	57.4	44.3%	$98.41	$6.77	$91.65	$89.79	$5.28	$84.51	$8.63	$1.49	$7.14
2011	107,379	616,450	58.8	44.1%	$124.29	$7.38	$116.91	$120.11	$6.71	$113.40	$4.18	$0.67	$3.51

D. Cost of Reform

It should be obvious that it is not possible to add over a half million newly insured individuals to the health insurance rolls without incurring additional cost. As we discuss in the body of the report, the reform was initiated in part because the Commonwealth was threatened with a loss of federal funds for earlier Medicaid expansions that were expiring. Supporters of reform also believed that the reform would "pay for itself" because the Commonwealth would be able to end its uncompensated care program for the newly insured. (As an example of this theory, see the 2004 editorial by Governor Romney in the Boston Globe [2].) In fact, both of these sources of funding became important offsets to the state's gross cost of its expanded insurance. Table E.17 shows our estimates of the additional cost of the program, the offsets available to the Commonwealth and the manner in which the share of the additional cost borne by different agents. Figure E.1 shows the breakdown of the overall estimated cost of $2.7 billion between the Commonwealth,

employers, the federal government and the insured themselves. Significantly the Commonwealth (and its taxpayers) incurred relatively minor additional cost (with the exception of smokers), with the major additional cost being borne by the federal government, employers and the newly insured.

Figure E.1

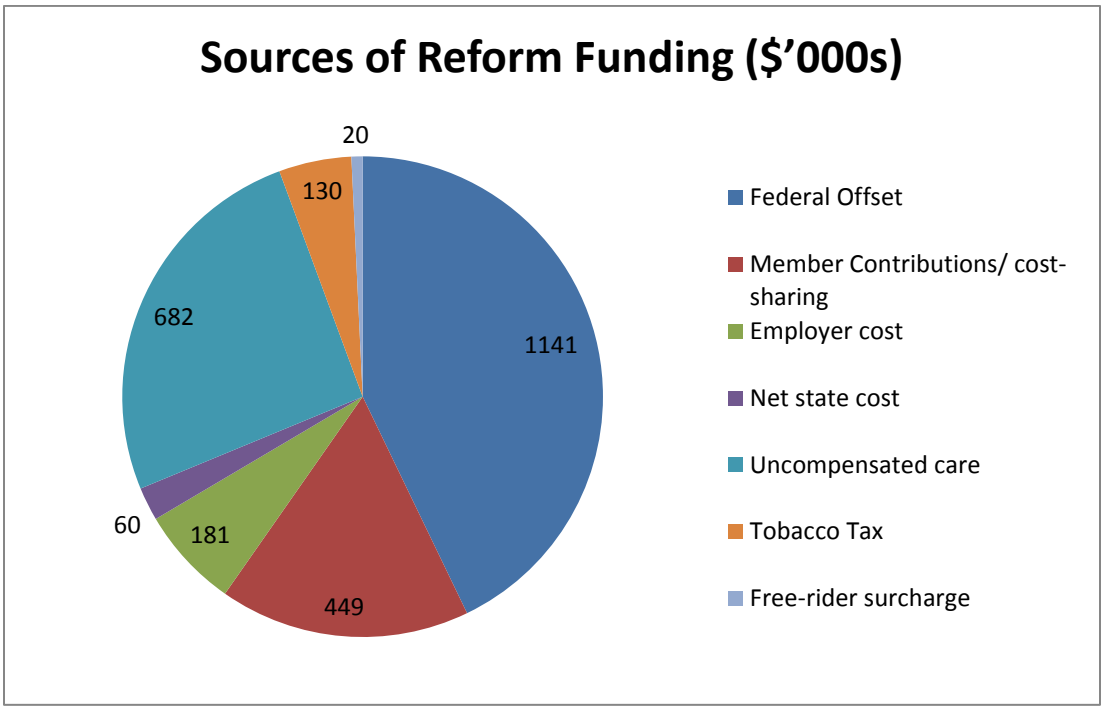

Table E.19 Estimated Costs Imposed by Reform

	Gross Cost	Federal Offset	Member Contributions/ cost-sharing	Net Cost (State)	Member /Employer Cost
MassHealth (those previously eligible who had not enrolled);	1,069,183,200	(534,591,600)	(140,607,600)	393,984,000	140,607,600
MassHealth expansion categories;	348,891,360	(174,445,680)	(45,882,480)	128,563,200	45,882,480
Commonwealth Care (newly-enrolled in the program);	865,012,000	(432,506,000)	(63,000,000)	369,506,000	63,000,000
Newly-enrolled lives who had previously declined employer group insurance;	-	-	-	-	-
Newly-enrolled lives in employer groups not previously offering insurance;	224,044,518	-	(43,345,704)	-	224,044,518
Newly-enrolled lives in Commonwealth choice; and	155,691,953	-	(155,691,953)	-	155,691,953
Newly-enrolled lives in non-group insurance who purchased directly from an insurer;	-	-	-	-	-
Additional cost imposed on existing employers and members by the requirements of Minimum Creditable Coverage.	-	-	-	-	-
	$2,662,823,031	$(1,141,543,280)	$ (448,527,736)	$892,053,200	$ 629,226,551
Offsetting Amounts:					
- Reductions in Uncompensated Care (HSN)*	(682,388,000)				
- Tobacco Tax Revenue **	(130,000,000)				
- Free-rider Surcharge***	(20,000,000)				
Net Cost	$1,830,435,031	$(1,141,543,280)	$ (448,527,736)	$ 59,665,200	$ 629,226,551
* Estimated as difference in costs between FY 2006 and FY 2012					
** Estimated from change in gross receipts FY 2008 and FY 2012					
*** Actual receipts not available; projected from prior years					

E. Lessons for States Managing Exchanges under the ACA

Massachusetts is a unique state with a history of a relatively high rate of health insurance coverage. The environment in which Massachusetts reform was implemented as well as specific features of the reform itself are likely different from other states under the ACA. Nevertheless there are some important lessons:

1. The largest subpopulation to gain insurance was those citizens already eligible for Medicaid who had not previously enrolled. Although Massachusetts was successful enrolling those citizens who received a subsidy, the Connector was less successful at enrolling unsubsidized lives, many of whom found insurance through their employers or direct from insurers.

2. The Connector's inability to penetrate the Commercial market did not change over time. The two-program nature of the Massachusetts reform is different from the ACA; within an ACA exchange all members purchase from a common set of plans, with subsidies varying continuously up to a higher percentage of FPL. Therefore, ACA exchange operators should be able to exert an influence over the Commercial market that is more consistent with the Connector's influence over the Commonwealth Care market.

3. The Connector's attempts to penetrate the unsubsidized market were largely unsuccessful: Its small group enrollment at FY-end 2013 amounted to slightly more than 5,000 (and this in partnership with an outside organization), while its attempt to introduce a federal employee–type plan, allowing employees to choose between carriers and different plans, was less successful than other Connector innovations. The Connector improved the shopping experience for the nongroup market, but in the broker-dominated small group market, the Connector adds an additional layer of complexity and competes with powerful intermediaries and insurers. The Connector was not able to gain market share in the small group market, and its market share in the nongroup market did not exceed 10% until 2012.

4. The risk profile of the newly enrolled is a critical factor. Initial appearances may be deceptive: The subsidized population initially appeared to be a relatively low utilizer (both in absolute terms and relative to the Medicaid population) of some services, particularly in the early years following inception. On a risk-adjusted basis, however, this is not the case, and the newly enrolled subsidized population was a high utilizer of services relative to its risk profile (particularly of emergency room services). The only population that, on a risk-adjusted basis, is a comparatively low utilizer of services is the newly enrolled Commercial population (those that enroll through an employer or direct through an insurer). This population is relatively older than existing Commercially insured members and has a higher risk score (as we would

expect, given the relative ages) but is both a low utilizer of services and a relatively low-cost population. The Conservative consumer hypothesis (that the newly insured would be conservative utilizers of services) appears to be confirmed only by the newly enrolled Commercial (unsubsidized) population. Managers of Exchanges, in addition to performing risk adjustment, will need to closely monitor enrollment and utilization of the newly insured.

5. A conclusion from the risk profile analysis of Massachusetts insureds is that there are different subpopulations within the newly insured, and these populations have different experience and will behave differently. For a state operating an exchange it will be important to identify and manage the mix and utilization of subpopulations.

6. Analysis of member-switching behavior in the subsidized Commonwealth Care program shows lower elasticity of response by members to changes in price than has been reported in the employer market literature. This behavior suggests that members are less likely to react to price changes than their counterparts with employer-provided insurance. The lesson for plans on the Exchange is to gain market share early, in the expectation that through inertia, those members will stay with their original plan.

7. The cost of the ACA will largely be borne by the federal government at least initially, as was the case with the Massachusetts reform. Because Massachusetts was able to divert funds from its existing uncompensated care pool and increase its tobacco tax, the state's cost was limited. Not all states will be in this fortunate position. The cost imposed on the insureds themselves (and to a lesser extent employers) is also not insignificant, and as medical trends increase costs in the future as they inevitably will, this will become a source of friction between states and their insureds.

Close management of the financial aspects of the Exchange is important. Massachusetts achieved very good, stable financial results with the average capitation rate paid to participating MCOs varying very little over seven years (although with volatility within this period) by following an active negotiating strategy and working closely with the MCOs. The "3 R's" as practiced in Massachusetts made a minor contribution to the financial stability of the program with reinsurance being a net positive contributor and the Risk Corridor being a net contributor to the state. (The third element of the 3 R's is not reported separately because Massachusetts adjusted capitation rates prospectively each quarter according to an MCO's enrollment risk profile.