

**SENATE . . . . . No. 2450**

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**The Commonwealth of Massachusetts**

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**In the One Hundred and Eighty-Ninth General Court**  
**(2015-2016)**  
—————

SENATE, Thursday, July 21, 2016

The committee on Ways and Means, to whom was referred the Senate Bill relative to principle-based reserving for life insurance (Senate, No. 539),-- reports, recommending that the same ought to pass with an amendment substituting a new draft with the same title (Senate, No. 2450).

For the committee,  
Karen E. Spilka

The Commonwealth of Massachusetts

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In the One Hundred and Eighty-Ninth General Court  
(2015-2016)  
\_\_\_\_\_

An Act relative to principle-based reserving for life insurance.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1           SECTION 1. Chapter 175 of the General Laws is hereby amended by inserting after  
2 section 9 the following section:-

3           Section 9 ½. (a) As used in this section, the following words shall have the following  
4 meanings unless the context clearly requires otherwise:

5           “Accident and health insurance”, contracts that incorporate morbidity risk and provide  
6 protection against economic loss resulting from accident, sickness or medical conditions and as  
7 may be specified in the valuation manual.

8           “Appointed actuary”, a qualified actuary who is appointed in accordance with the  
9 valuation manual to prepare the actuarial opinion required by section 9B½.

10          “Company”, an entity, which: (i) has written, issued or reinsured life insurance contracts,  
11 accident and health insurance contracts or deposit-type contracts in the commonwealth and has at  
12 least 1 such policy in force or on claim; or (ii) has written, issued or reinsured life insurance  
13 contracts, accident and health insurance contracts or deposit-type contracts in any state and is

14 required to hold a certificate of authority to write life insurance, accident and health insurance or  
15 deposit-type contracts in the commonwealth.

16 “Deposit-type contract”, contracts that do not incorporate mortality or morbidity risks and  
17 as may be specified in the valuation manual.

18 “Life insurance”, contracts that incorporate mortality risk, including annuity and pure  
19 endowment contracts and as may be specified in the valuation manual.

20 “Policyholder behavior”, any action a policyholder, contract holder or other person with  
21 the right to elect options, such as a certificate holder, may take pursuant to a policy or contract  
22 subject to this section including, but not limited to, lapse, withdrawal, transfer, deposit, premium  
23 payment, loan, annuitization or benefit elections prescribed by the policy or contract but  
24 excluding events of mortality or morbidity that result in benefits prescribed in their essential  
25 aspects by the terms of the policy or contract.

26 “Principle-based valuation”, a reserve valuation that uses 1 or more methods or 1 or more  
27 assumptions determined by the insurer and is required to comply with subsection (f), as specified  
28 in the valuation manual.

29 “Qualified actuary”, an individual who is qualified to sign the applicable statement of  
30 actuarial opinion in accordance with the American Academy of Actuaries qualification standards  
31 for actuaries signing such statements and who meets the requirements specified in the valuation  
32 manual.

33 “Tail risk”, a risk that occurs either where the frequency of low probability events is  
34 higher than expected under a normal probability distribution or where there are observed events  
35 of very significant size or magnitude.

36 “Valuation manual”, the manual of valuation instructions adopted by the NAIC as  
37 specified in this section or as subsequently amended.

38 (b) (1) The commissioner shall annually value, or cause to be valued, the reserve  
39 liabilities for all outstanding life insurance policies and annuity and pure endowment contracts of  
40 every life insurance company doing business in the commonwealth issued before the operative  
41 date of the valuation manual. In calculating reserve liabilities, the commissioner may use group  
42 methods and approximate averages for fractions of a year or otherwise. In lieu of the valuation of  
43 the reserve liabilities required of a foreign or alien company, the commissioner may accept a  
44 valuation made, or caused to be made, by the insurance supervisory official of any state or other  
45 jurisdiction when the valuation complies with the minimum standard provided in this section.

46 (2) The minimum standard for the valuation of all policies and contracts, as  
47 appropriate, subject to this section issued before the operative date of the valuation manual shall  
48 be that provided by the laws in effect immediately before the effective date of this section.  
49 Subsections (d), (e) and (f) shall not apply to such policies and contracts.

50 (c) (1) The commissioner shall annually value, or cause to be valued, the reserve  
51 liabilities for all outstanding life insurance contracts, annuity and pure endowment contracts,  
52 accident and health contracts and deposit-type contracts of every company issued on or after the  
53 operative date of the valuation manual. In lieu of the valuation of the reserve liabilities required  
54 of a foreign or alien company, the commissioner may accept a valuation made, or caused to be

55 made, by the insurance supervisory official of any state or other jurisdiction when the valuation  
56 complies with the minimum standard provided in this section.

57 (2) Subsections (d), (e) and (f) shall apply to all policies and contracts issued on  
58 or after the operative date of the valuation manual. Section 9 shall not apply to policies and  
59 contracts issued on or after the operative date of the valuation manual.

60 (3) Notwithstanding the valuation manual, a mortality table shall only be applied  
61 to an individual or group annuity or pure endowment contract subject to this subsection on a  
62 gender-neutral or gender-blended basis in accordance with regulations promulgated by the  
63 commissioner.

64 (d) For accident and health insurance contracts issued on or after the operative date of the  
65 valuation manual, the standard prescribed in the valuation manual is the minimum standard of  
66 valuation required pursuant to subsection (c).

67 (e) (1) For policies issued on or after the operative date of the valuation manual, the  
68 standard prescribed in the valuation manual is the minimum standard of valuation required  
69 pursuant to subsection (c), except as provided pursuant to paragraphs (5) or (7).

70 (2) The operative date of the valuation manual is January 1 of the first calendar  
71 year following the first July 1 as of which all of the following have occurred:

72 (i) the valuation manual has been adopted by the NAIC by an affirmative  
73 vote of not less than 42 members or  $\frac{3}{4}$  of the members voting, whichever is greater;

74 (ii) the NAIC standard valuation law, as amended by the NAIC in 2009,  
75 including substantially similar terms and provisions, has been enacted by states representing

76 greater than 75 per cent of the direct premiums written as reported in life, accident and health  
77 annual statements, health annual statements or fraternal annual statements submitted in 2008;  
78 and

79 (iii) the NAIC a standard valuation law, as amended by the NAIC in 2009,  
80 including substantially similar terms and provisions, has been enacted by not less than 42 of the  
81 55 jurisdictions comprising the United States, American Samoa, the United States Virgin Islands,  
82 the District of Columbia, Guam and the commonwealth of Puerto Rico.

83 (3) Unless a change in the valuation manual specifies a later effective date,  
84 changes to the valuation manual shall be effective on January 1 following the date that the  
85 changes are adopted by the NAIC by an affirmative vote that satisfies the following  
86 requirements:

87 (i) not less than  $\frac{3}{4}$  of the members of the NAIC voting, but not less than a  
88 majority of the total membership; and

89 (ii) members of the NAIC representing jurisdictions totaling greater than  
90 75 per cent of the direct premiums written as reported in life, accident and health annual  
91 statements, health annual statements or fraternal annual statements most recently available before  
92 the vote in clause (i).

93 (4) The valuation manual shall specify the following:

94 (i) the minimum valuation standards for and definitions of the policies or  
95 contracts subject to subsection (c), including: (A) the commissioners reserve valuation method  
96 for life insurance contracts, other than annuity contracts, subject to subsection (c); (B) the

97 commissioners annuity reserve valuation method for annuity contracts subject to said subsection  
98 (c); and (C) minimum reserves for all other policies or contracts subject to said subsection (c);

99 (ii) which policies or contracts or types of policies or contracts that are  
100 subject to the requirements of a principle-based valuation in paragraph (1) of subsection (f) and  
101 the minimum valuation standards consistent with those requirements;

102 (iii) for policies and contracts subject to a principle-based valuation  
103 pursuant to subsection (f): (A) requirements for the format of reports to the commissioner  
104 pursuant to clause (iii) of paragraph (2) of subsection (f) and which shall include information  
105 necessary to determine if the valuation is appropriate and in compliance with this section; (B)  
106 assumptions for risks over which the company does not have significant control or influence; and  
107 (C) procedures for corporate governance and oversight of the actuarial function and a process for  
108 appropriate waiver or modification of those procedures;

109 (iv) for policies not subject to a principle-based valuation pursuant to  
110 subsection (f), the minimum valuation standard shall either be consistent with the minimum  
111 standard of valuation before the operative date of the valuation manual, or develop reserves that  
112 quantify the benefits and guarantees, and the funding, associated with the contracts and their  
113 risks at a level of conservatism that reflects conditions that include unfavorable events that have  
114 a reasonable probability of occurring;

115 (v) other requirements including, but not limited to, those relating to  
116 reserve methods, models for measuring risk, generation of economic scenarios, assumptions,  
117 margins, use of company experience, risk measurement, disclosure, certifications, reports,  
118 actuarial opinions and memorandums, transition rules and internal controls; and

119 (vi) the data and form of the data required pursuant to subsection (g), and  
120 to whom the data shall be submitted and may specify other requirements including data analyses  
121 and reporting of analyses.

122 (5) In the absence of a specific valuation requirement or if a specific valuation  
123 requirement in the valuation manual is not, in the determination of the commissioner, in  
124 compliance with this section, then the company shall, with respect to those requirements, comply  
125 with minimum valuation standards prescribed by the commissioner through regulation.

126 (6) The commissioner may engage a qualified actuary, at the expense of an  
127 insurance company, to perform an actuarial examination of that company and determine the  
128 appropriateness of a reserve assumption or method used by the company or to review and  
129 determine an insurance company's compliance with the requirements of this section. The  
130 commissioner may rely upon the opinion of a qualified actuary engaged by the commissioner of  
131 another state, district or territory of the United States. For purposes of this paragraph, the term  
132 "engage" shall include employment and contracting.

133 (7) The commissioner may require a company to change an assumption or method  
134 that is determined by the commissioner to be necessary in order to comply with the requirements  
135 of the valuation manual or this section and the company shall adjust the reserves as required by  
136 the commissioner. The commissioner may take other disciplinary action as permitted pursuant to  
137 this chapter and chapter 176D.

138 (f) (1) A company shall establish reserves using a principle-based valuation that  
139 meets the following conditions for policies or contracts, as specified in the valuation manual:

140 (i) quantify the benefits and guarantees and the funding associated with  
141 the contracts and their risks at a level of conservatism that reflects conditions that include  
142 unfavorable events that have a reasonable probability of occurring during the lifetime of the  
143 contracts and, for policies or contracts with significant tail risk, a company's valuation shall  
144 reflect conditions appropriately adverse to quantify the tail risk;

145 (ii) incorporate assumptions, risk analysis methods and financial models  
146 and management techniques that are consistent with, but not necessarily identical to, those  
147 utilized within the company's overall risk assessment process, while recognizing potential  
148 differences in financial reporting structures and prescribed assumptions or methods;

149 (iii) incorporate assumptions that are derived in 1 of the following  
150 manners: (A) the assumption is prescribed in the valuation manual; (B) for assumptions that are  
151 not prescribed, the assumptions shall: be established utilizing the company's available  
152 experience, to the extent it is relevant and statistically credible; or to the extent that company  
153 data is not available, relevant or statistically credible, be established utilizing other relevant,  
154 statistically credible experience; and

155 (iv) provide margins for uncertainty including adverse deviation and  
156 estimation error, such that the greater the uncertainty the larger the margin and resulting reserve.

157 (2) A company using a principle-based valuation for 1 or more policies or  
158 contracts subject to this section as specified in the valuation manual shall:

159 (i) establish procedures for corporate governance and oversight of the  
160 actuarial valuation function consistent with those described in the valuation manual;

161 (ii) provide to the commissioner and the board of directors of the company  
162 an annual certification of the effectiveness of the internal controls with respect to the principle-  
163 based valuation, and those controls shall be designed to insure that all material risks inherent in  
164 the liabilities and associated assets subject to that valuation are included in the valuation, and that  
165 valuations are made in accordance with the valuation manual, and the certification shall be based  
166 on the controls in place as of the end of the preceding calendar year; and

167 (iii) develop and file with the commissioner upon request a principle-  
168 based valuation report that complies with standards prescribed in the valuation manual.

169 (3) A principle-based valuation may include a prescribed formulaic reserve  
170 component. A company shall submit mortality, morbidity, policyholder behavior or expense  
171 experience and other data as required by the valuation manual.

172 (g) (1) For purposes of this subsection, “regulatory agency,” “law enforcement  
173 agency” and the “NAIC” shall include, but shall not be limited to, employees, agents, consultants  
174 and contractors of those entities. The term “confidential information” shall mean:

175 (i) a memorandum in support of an opinion submitted pursuant to section  
176 9B½ and other documents, materials and other information including, but not limited to, all  
177 working papers, and copies thereof, created, produced or obtained by or disclosed to the  
178 commissioner or other person in connection with the memorandum;

179 (ii) all documents, materials and other information including, but not  
180 limited to, all working papers, and copies thereof, created, produced or obtained by or disclosed  
181 to the commissioner or other person in the course of an examination made pursuant to paragraph  
182 (6) of subsection (e), provided, that if an examination report or other material prepared in

183 connection with an examination made pursuant to section 4 is not held as private and  
184 confidential information pursuant to said section 4, an examination report or other material  
185 prepared in connection with an examination made pursuant to said paragraph (6) of said  
186 subsection (e) shall not be considered confidential information to the same extent as if the  
187 examination report or other material had been prepared pursuant to section 4;

188 (iii) reports, documents, materials and other information developed by a  
189 company in support of or in connection with an annual certification by the company pursuant to  
190 clause (ii) of paragraph (2) of subsection (f) evaluating the effectiveness of the company's  
191 internal controls with respect to a principle-based valuation and any other documents, materials  
192 and other information including, but not limited to, all working papers, and copies thereof,  
193 created, produced or obtained by or disclosed to the commissioner or other person in connection  
194 with the reports, documents, materials and other information;

195 (iv) a principle-based valuation report developed pursuant to clause (iii) of  
196 paragraph (2) of subsection (f) and other documents, materials and other information including,  
197 but not limited to, all working papers, and copies thereof, created, produced or obtained by or  
198 disclosed to the commissioner or other person in connection with the report; and

199 (v) documents, materials, data and other information submitted by a  
200 company pursuant to subsection (i) and any other documents, materials, data and other  
201 information including, but not limited to, all working papers, and copies thereof, created or  
202 produced in connection with such experience data, in each case that include potentially  
203 company-identifying or personally identifiable information, that is provided to or obtained by the  
204 commissioner and any other documents, materials, data and other information including, but not

205 limited to, all working papers, and copies thereof, created, produced or obtained by or disclosed  
206 to the commissioner or other person in connection with such experience materials.

207 (2) Except as provided in this subsection, a company's confidential information is  
208 confidential by law and privileged and shall not be subject to chapter 66 or the Twenty-sixth  
209 clause of section 7 of chapter 4, shall not be subject to subpoena and shall not be subject to  
210 discovery or admissible in evidence in a private civil action. The commissioner may use  
211 confidential information in the furtherance of a regulatory or legal action brought against the  
212 company as a part of the commissioner's official duties.

213 Neither the commissioner nor a person who received confidential information while  
214 acting under the authority of the commissioner may testify in a private civil action concerning  
215 confidential information.

216 In order to assist in the performance of the commissioner's duties, the commissioner may  
217 share confidential information with other state, federal and international regulatory agencies and  
218 with the NAIC and its affiliates and subsidiaries and, in the case of confidential information  
219 specified in clauses (i) and (iv) of paragraph (1), with the Actuarial Board for Counseling and  
220 Discipline or its successor upon request stating that the confidential information is required for  
221 the purpose of professional disciplinary proceedings and with state, federal and international law  
222 enforcement officials; provided, however, that the recipient agrees and has the legal authority to  
223 agree to maintain the confidentiality and privileged status of the documents, materials, data and  
224 other information in the same manner and to the same extent as required for the commissioner.

225 The commissioner may receive documents, materials, data and other information,  
226 including otherwise confidential and privileged documents, materials, data or information, from

227 the NAIC and its affiliates and subsidiaries, from regulatory or law enforcement officials of other  
228 foreign or domestic jurisdictions and from the Actuarial Board for Counseling and Discipline or  
229 its successor and shall maintain as confidential or privileged any document, material, data or  
230 other information received with notice or the understanding that it is confidential or privileged  
231 under the laws of the jurisdiction that is the source of the document, material or other  
232 information.

233 The commissioner may enter into agreements governing sharing and use of information  
234 consistent with this paragraph.

235 No waiver of an applicable privilege or claim of confidentiality in the confidential  
236 information shall occur as a result of disclosure to the commissioner pursuant to this section or as  
237 a result of sharing as authorized in the third paragraph of this paragraph.

238 A privilege established pursuant to the law of any state or jurisdiction that is substantially  
239 similar to the privilege established pursuant to this paragraph shall be available and enforced in a  
240 proceeding in and in any court of the commonwealth.

241 (3) Notwithstanding paragraph (2), confidential information specified in clauses  
242 (i) and (iv) of paragraph (1):

243 (i) may be subject to subpoena to defend an action seeking damages from  
244 the appointed actuary submitting the related memorandum in support of an opinion submitted  
245 pursuant to section 9B½ or principle-based valuation report developed pursuant to clause (iii) of  
246 paragraph (2) of subsection (f) by reason of an action required by this section or through  
247 regulation;

248 (ii) may otherwise be released by the commissioner with the written  
249 consent of the company; and

250 (iii) once a portion of a memorandum in support of an opinion submitted  
251 pursuant to section 9B½ or a principle-based valuation report developed pursuant to clause (iii)  
252 of paragraph (2) of subsection (f) is cited by the company in its marketing or is publicly  
253 volunteered to or before a governmental agency other than a state insurance department or is  
254 released by the company to the news media, all portions of that memorandum or report shall no  
255 longer be confidential.

256 (h) (1) The commissioner may exempt specific product forms or product lines of a  
257 domestic company that is licensed and doing business only in the commonwealth from the  
258 requirements of subsection (e) provided that the: (i) commissioner has issued an exemption in  
259 writing to the company and has not subsequently revoked the exemption in writing; and (ii)  
260 company computes reserves using assumptions and methods used before the operative date of  
261 the valuation manual in addition to any requirements established by the commissioner and  
262 promulgated by regulation.

263 (2) The minimum standards for the valuation of all applicable policies and  
264 contracts provided by the laws in effect immediately before the effective date of this section shall  
265 be applicable for a company granted an exemption pursuant to this section or section 9B½.

266 (i) The commissioner may, pursuant to chapter 30A, upon notice and opportunity for all  
267 interested parties to be heard, issue rules, regulations and orders as shall be necessary to carry out  
268 this section.

269 (j) This section shall apply to all life insurance contracts, accident and health insurance  
270 contracts and deposit-type contracts issued on or after the operative date of the valuation manual  
271 as defined herein.

272 SECTION 2. Said chapter 175 is hereby further amended by inserting after section 9B  
273 the following section:-

274 Section 9B½. (a) For purposes of this section, the definitions in subsection (a) of section  
275 9½ shall apply unless the context clearly requires otherwise.

276 (b) After the operative date of the valuation manual as defined in section 9½, every  
277 company with outstanding life insurance contracts, accident and health insurance contracts or  
278 deposit-type contracts in the commonwealth and subject to regulation by the commissioner shall  
279 annually submit the opinion of the appointed actuary as to whether the reserves and related  
280 actuarial items held in support of the policies and contracts are computed appropriately, are  
281 based on assumptions that satisfy contractual provisions, are consistent with prior reported  
282 amounts and comply with applicable laws of the commonwealth. The valuation manual shall  
283 prescribe the specifics of this opinion including items necessary to the scope of the opinion.

284 (c) After the effective date of this section and before the operative date of the valuation  
285 manual as defined in section 9½, the specifics of the opinion and the manner in which the  
286 confidentiality of the memorandum in support of the opinion shall be protected shall be as  
287 prescribed by section 9B.

288 (d) After the operative of the valuation manual as defined in section 9½, every company  
289 with outstanding life insurance contracts, accident and health insurance contracts or deposit-type  
290 contracts in the commonwealth and subject to regulation by the commissioner, except as

291 exempted in the valuation manual, shall also annually include in the opinion required by  
292 subsection (b) an opinion of the same appointed actuary as to whether the reserves and related  
293 actuarial items held in support of the policies and contracts specified in the valuation manual,  
294 when considered in light of the assets held by the company with respect to the reserves and  
295 related actuarial items including, but not limited to, the investment earnings on the assets and the  
296 considerations anticipated to be received and retained under the policies and contracts, make  
297 adequate provision for the company's obligations under the policies and contracts including, but  
298 not limited to, the benefits under and expenses associated with the policies and contracts.

299 (e) The commissioner may provide by regulation for a transition period for establishing  
300 higher reserves that the appointed actuary may deem necessary in order to render the opinion  
301 required by subsection (b).

302 (f) A memorandum, in form and substance as specified in the valuation manual, and  
303 acceptable to the commissioner, shall be prepared to support each actuarial opinion required by  
304 subsection (b).

305 If the insurance company fails to provide a supporting memorandum at the request of the  
306 commissioner within a period specified in the valuation manual or the commissioner determines  
307 that the supporting memorandum provided by the insurance company fails to meet the standards  
308 prescribed by the valuation manual or is otherwise unacceptable to the commissioner, the  
309 commissioner may engage a qualified actuary at the expense of the company to review the  
310 opinion and the basis for the opinion and prepare the supporting memorandum required by the  
311 commissioner.

312           The opinion shall be in form and substance as specified in the valuation manual and  
313 acceptable to the commissioner.

314           The opinion shall be submitted with the annual statement reflecting the valuation of  
315 reserve liabilities for each year ending on or after the operative date of the valuation manual.

316           The opinion shall apply to all policies and contracts subject to subsection (d) in addition  
317 to any other actuarial liabilities specified in the valuation manual.

318           The opinion shall be based on standards adopted from time to time by the Actuarial  
319 Standards Board or its successor and on such additional standards as may be prescribed in the  
320 valuation manual.

321           In the case of an opinion required to be submitted by a foreign or alien company, the  
322 commissioner may accept the opinion filed by that company with the insurance supervisory  
323 official of another state if the commissioner determines that the opinion reasonably meets the  
324 requirements applicable to a company domiciled in the commonwealth.

325           Except in cases of fraud or willful misconduct, the appointed actuary shall not be liable  
326 for damages to any person, other than the insurance company and the commissioner for any act,  
327 error, omission, decision or conduct with respect to the appointed actuary's opinion.

328           Disciplinary action by the commissioner against the company or the appointed actuary  
329 shall be defined in regulations by the commissioner.

330           After the operative date of the valuation manual as defined in section 9½, a memorandum  
331 in support of an opinion submitted pursuant to section 9B½ and other documents, materials and  
332 information including, but not limited to, all working papers, and copies thereof, created,

333 produced or obtained by or disclosed to the commissioner or other person in connection with the  
334 memorandum is deemed confidential information pursuant to clause (i) of paragraph (1) of  
335 subsection (j) of section 9½ and shall be treated and protected as required pursuant to that  
336 section.

337 (g) The commissioner may, pursuant to chapter 30A, upon notice and opportunity for all  
338 interested parties to be heard, issue rules, regulations and orders as shall be necessary to carry out  
339 this section.

340 SECTION 3. Said chapter 175 is hereby further amended by inserting after section 144  
341 the following section:-

342 Section 144½. (a) Section 144 shall not apply to policies issued on and after the  
343 operative date of the valuation manual as defined by section 9½. For the purposes of this section,  
344 the term “operative date of the valuation manual” shall mean January 1 of the first calendar year  
345 that the valuation manual is effective.

346 (b) In the case of policies issued on and after the operative date of the valuation manual  
347 as defined in subsection (a), no policy of life insurance, except as provided in subsection (i),  
348 shall be delivered or issued for delivery in the commonwealth unless it contains in substance the  
349 following or corresponding provisions which are, in the opinion of the commissioner, at least as  
350 favorable to the defaulting or surrendering policyholder as are the minimum requirements  
351 specified here and are in compliance with subsection (h).

352 In the event of default in a premium payment, the company will grant, upon proper  
353 request not later than 60 days after the due date of the premium in default, a paid-up  
354 nonforfeiture benefit on a plan stipulated in the policy, effective as of the due date, of an amount

355 as may be hereinafter specified. In lieu of the stipulated paid-up nonforfeiture benefit, the  
356 company may substitute, upon proper request not later than 60 days after the due date of the  
357 premium in default, an actuarially equivalent alternative paid-up nonforfeiture benefit which  
358 provides a greater amount or longer period of death benefits or, if applicable, a greater amount or  
359 earlier payment of endowment benefits.

360           Upon surrender of the policy not later than 60 days after the due date of a premium  
361 payment in default after premiums have been paid for at least 3 years in the case of ordinary  
362 insurance or 5 years in the case of industrial insurance, the company will pay, in lieu of a paid-up  
363 nonforfeiture benefit, a cash surrender value of an amount as may be hereinafter specified.

364           A specified paid-up nonforfeiture benefit shall become effective as specified in the policy  
365 unless the person entitled to make the election elects another available option not later than 60  
366 days after the due date of the premium in default.

367           If the policy shall have become paid-up by completion of all premium payments or if it is  
368 continued under a paid-up nonforfeiture benefit which became effective on or after the third  
369 policy anniversary in the case of ordinary insurance or the fifth policy anniversary in the case of  
370 industrial insurance, the company will pay, upon surrender of the policy not later than thirty 30  
371 days after a policy anniversary, a cash surrender value of an amount as may be hereinafter  
372 specified.

373           In the case of policies which cause, on a basis guaranteed in the policy, unscheduled  
374 changes in benefits or premiums, or which provide an option for changes in benefits or premiums  
375 other than a change to a new policy; a statement of the mortality table, interest rate and method  
376 used in calculating cash surrender values and the paid-up nonforfeiture benefits available under

377 the policy. In the case of all other policies, a statement of the mortality table and interest rate  
378 used in calculating the cash surrender values and the paid-up nonforfeiture benefits available  
379 under the policy, together with a table showing the cash surrender value, if any, and paid-up  
380 nonforfeiture benefit, if any, available under the policy on each policy anniversary either during  
381 the first 20 policy years or during the term of the policy, whichever is shorter, such values and  
382 benefits to be calculated upon the assumption that there are no dividends or paid-up additions  
383 credited to the policy and that there is no indebtedness to the company on the policy.

384 A statement that the cash surrender values and the paid-up nonforfeiture benefits  
385 available under the policy are not less than the minimum values and benefits required by or  
386 pursuant to the insurance law of the state in which the policy is delivered; an explanation of the  
387 manner in which the cash surrender values and the paid-up nonforfeiture benefits are altered by  
388 the existence of any paid-up additions credited to the policy or any indebtedness to the company  
389 on the policy; if a detailed statement of the method of computation of the values and benefits  
390 shown in the policy is not stated therein, a statement that a method of computation has been filed  
391 with the insurance supervisory official of the state in which the policy is delivered; and a  
392 statement of the method to be used in calculating the cash surrender value and a paid-up  
393 nonforfeiture benefit available under the policy on a policy anniversary beyond the last  
394 anniversary for which values and benefits are consecutively shown in the policy.

395 Any of the foregoing provisions or portions thereof not applicable by reason of the plan  
396 of insurance may, to the extent inapplicable, be omitted from the policy.

397 The company shall reserve the right to defer the payment of a cash surrender value for a  
398 period of 6 months after demand therefor with surrender of the policy.

399           (c)     (1) A cash surrender value available under the policy in the event of default in a  
400 premium payment due on a policy anniversary, whether or not required by subsection (b), shall  
401 be an amount not less than the excess, if any, of the present value, on the anniversary, of the  
402 future guaranteed benefits which would have been provided for by the policy, including any  
403 existing paid-up additions, if there had been no default, over the sum of: (i) the then present  
404 value of the adjusted premiums as defined in subsection (e), corresponding to premiums which  
405 would have fallen due on and after the anniversary; and (ii) the amount of any indebtedness to  
406 the company on the policy.

407                     (2) For a policy issued on or after the operative date of subsection (e), which  
408 provides supplemental life insurance or annuity benefits at the option of the insured and for an  
409 identifiable additional premium by rider or supplemental policy provision, the cash surrender  
410 value referred to in paragraph (1) shall be an amount not less than the sum of the cash surrender  
411 value for an otherwise similar policy issued at the same age without the rider or supplemental  
412 policy provision and the cash surrender value as defined in paragraph (1) for a policy which  
413 provides only the benefits otherwise provided by the rider or supplemental policy provision.

414                     (3) For a family policy issued on or after the operative date of subsection (e),  
415 which defines a primary insured and provides term insurance on the life of the spouse of the  
416 primary insured expiring before the spouse reaches the age of 71, the cash surrender value  
417 referred to in paragraph (1) shall be an amount not less than the sum of the cash surrender value  
418 for an otherwise similar policy issued at the same age without term insurance on the life of the  
419 spouse and the cash surrender value as defined in paragraph (1) for a policy which provides only  
420 the benefits otherwise provided by term insurance on the life of the spouse.

421 (4) A cash surrender value available not later than 30 days after a policy  
422 anniversary under a policy paid-up by completion of all premium payments or a policy continued  
423 pursuant to a paid-up nonforfeiture benefit, whether or not required by subsection (b), shall be an  
424 amount not less than the present value, on the anniversary, of the future guaranteed benefits  
425 provided for by the policy, including any existing paid-up additions, decreased by any  
426 indebtedness to the company on the policy.

427 (d) The present value of a paid-up nonforfeiture benefit available under the policy in the  
428 event of default in a premium payment due on a policy anniversary shall be, as of that  
429 anniversary, at least equal to the cash surrender value then provided for by the policy or, if none  
430 is provided for, that cash surrender value which would have been required by this section in the  
431 absence of the condition that premiums shall have been paid for at least a specified period.

432 (e) (1) Except as provided in paragraph (7), the adjusted premiums for a policy shall  
433 be calculated on an annual basis and shall be such uniform percentage of the respective  
434 premiums specified in the policy for each policy year, excluding amounts payable as extra  
435 premiums to cover impairments or special hazards and also excluding any uniform annual  
436 contract charge or policy fee specified in the policy in a statement of the method to be used in  
437 calculating the cash surrender values and paid-up nonforfeiture benefits, that the present value, at  
438 the date of issue of the policy, of all adjusted premiums shall be equal to the sum of: (i) the then  
439 present value of the future guaranteed benefits provided for by the policy; (ii) 1 per cent of either  
440 the amount of insurance, if the insurance is uniform in amount, or the average amount of  
441 insurance at the beginning of each of the first 10 policy years; and (iii) 125 per cent of the  
442 nonforfeiture net level premium as hereinafter defined, provided, however, that in applying this  
443 percentage no nonforfeiture net level premium shall be deemed to exceed 4 per cent of either the

444 amount of insurance, if the insurance is uniform in amount, or the average amount of insurance  
445 at the beginning of each of the first 10 policy years.

446 The date of issue of a policy for the purpose of this section shall be the date as of which  
447 the rated age of the insured is determined.

448 (2) The nonforfeiture net level premium shall be equal to the present value, at the  
449 date of issue of the policy, of the guaranteed benefits provided for by the policy divided by the  
450 present value, at the date of issue of the policy, of an annuity of 1 per annum payable on the date  
451 of issue of the policy and on each anniversary of the policy on which a premium falls due.

452 (3) In the case of policies which cause, on a basis guaranteed in the policy,  
453 unscheduled changes in benefits or premiums, or which provide an option for changes in benefits  
454 or premiums other than a change to a new policy, the adjusted premiums and present values shall  
455 initially be calculated on the assumption that future benefits and premiums do not change from  
456 those stipulated at the date of issue of the policy. At the time of any change in the benefits or  
457 premiums, the future adjusted premiums, nonforfeiture net level premiums and present values  
458 shall be recalculated on the assumption that future benefits and premiums do not change from  
459 those stipulated by the policy immediately after the change.

460 (4) Except as otherwise provided in paragraph (7), the recalculated future adjusted  
461 premiums for a policy shall be a uniform percentage of the respective future premiums specified  
462 in the policy for each policy year, excluding amounts payable as extra premiums to cover  
463 impairments and special hazards, and also excluding any uniform annual contract charge or  
464 policy fee specified in the policy in a statement of the method to be used in calculating the cash  
465 surrender values and paid-up nonforfeiture benefits, that the present value, at the time of change

466 to the newly defined benefits or premiums, of all future adjusted premiums shall be equal to the  
467 excess of the sum of the then present value of the then future guaranteed benefits provided for by  
468 the policy and the additional expense allowance, if any, over the then cash surrender value, if  
469 any, or present value of any paid-up nonforfeiture benefit under this policy.

470 (5) The additional expense allowance, at the time of the change to the newly  
471 defined benefits or premiums, shall be the sum of: (i) 1 per cent of the excess, if positive, of the  
472 average amount of insurance at the beginning of each of the first 10 policy years subsequent to  
473 the change over the average amount of insurance before the change at the beginning of each of  
474 the first 10 policy years subsequent to the time of the most recent previous change, or, if there  
475 has been no previous change, the date of issue of the policy; and (ii) 125 per cent of the increase,  
476 if positive, in the nonforfeiture net level premium.

477 (6) The recalculated nonforfeiture net level premium shall be equal to the result  
478 obtained by dividing (i) by (ii), where (i) equals the sum of the nonforfeiture net level premium  
479 applicable before the change times the present value of an annuity of 1 per annum payable on  
480 each anniversary of the policy on or subsequent to the date of the change on which a premium  
481 would have fallen due had the change not occurred and the present value of the increase in future  
482 guaranteed benefits provided for by the policy, and (ii) equals the present value of an annuity of  
483 1 per annum payable on each anniversary of the policy on or subsequent to the date of change on  
484 which a premium falls due.

485 (7) Notwithstanding this section or any other general or special law to the  
486 contrary, in the case of a policy issued on a substandard basis which provides reduced graded  
487 amounts of insurance so that, in each policy year, the policy has the same tabular mortality cost

488 as an otherwise similar policy issued on the standard basis which provides higher uniform  
489 amount of insurance, adjusted premiums and present values for the substandard policy may be  
490 calculated as if it were issued to provide higher uniform amounts of insurance on the standard  
491 basis.

492 (8) All adjusted premiums and present values referred to in this section shall for  
493 all policies: (i) of ordinary insurance be calculated on the basis of the Commissioners 1980  
494 Standard Ordinary Mortality Table or, at the election of the company for specified plans of life  
495 insurance, the Commissioners 1980 Standard Ordinary Mortality Table with 10 year select  
496 mortality factors; (ii) of industrial insurance be calculated on the basis of the Commissioners  
497 1961 Standard Industrial Mortality Table; and (iii) issued in a particular calendar year be  
498 calculated on the basis of a rate of interest not exceeding the nonforfeiture interest rate as defined  
499 in this section, for policies issued in that calendar year.

500 At the option of the company, calculations for all policies issued in a particular calendar  
501 year may be made on the basis of a rate of interest not exceeding the nonforfeiture interest rate,  
502 as defined in this section, for policies issued in the immediately preceding calendar year.

503 Under a paid-up nonforfeiture benefit, including any paid-up dividend additions, any cash  
504 surrender value available, whether or not required by subsection (b), shall be calculated on the  
505 basis of the mortality table and rate of interest used in determining the amount of a paid-up  
506 nonforfeiture benefit and paid-up dividend additions.

507 A company may calculate the amount of a guaranteed paid-up nonforfeiture benefit  
508 including paid-up additions under the policy on the basis of an interest rate not lower than that  
509 specified in the policy for calculating cash surrender values.

510           In calculating the present value of paid-up term insurance with accompanying pure  
511 endowment, if any, offered as a nonforfeiture benefit, the rates of mortality assumed shall not be  
512 more than those shown in the Commissioners 1980 Extended Term Insurance Table for policies  
513 of ordinary insurance or not more than the Commissioners 1961 Industrial Extended Term  
514 Insurance Table for policies of industrial insurance.

515           For insurance issued on a substandard basis, the calculation of adjusted premiums and  
516 present values may be based on appropriate modifications of the aforementioned tables.

517           For policies issued on or after the operative date of the valuation manual, the valuation  
518 manual shall provide the Commissioners Standard Mortality Table for use in determining the  
519 minimum nonforfeiture standard that may be substituted for the Commissioners 1980 Standard  
520 Ordinary Mortality Table with or without 10 year select mortality factors or for the  
521 Commissioners 1980 Extended Term Insurance Table. If the commissioner approves by  
522 regulation a commissioners standard ordinary mortality table adopted by the NAIC for use in  
523 determining the minimum nonforfeiture standard for policies issued on or after the operative date  
524 of the valuation manual then that minimum nonforfeiture standard supersedes the minimum  
525 nonforfeiture standard provided by the valuation manual.

526           For policies issued on or after the operative date of the valuation manual the valuation  
527 manual shall provide the Commissioners Standard Mortality Table for use in determining the  
528 minimum nonforfeiture standard that may be substituted for the Commissioners 1961 Standard  
529 Industrial Mortality Table or the Commissioners 1961 Industrial Extended Term Insurance  
530 Table. If the commissioner approves by regulation a Commissioners Standard Industrial  
531 Mortality Table adopted by the NAIC for use in determining the minimum nonforfeiture

532 standard for policies issued on or after the operative date of the valuation manual then that  
533 minimum nonforfeiture standard supersedes the minimum nonforfeiture standard provided by the  
534 valuation manual.

535 (9) For policies issued on and after the operative date of the valuation manual, the  
536 nonforfeiture interest rate per annum for a policy issued in a particular calendar year shall be  
537 provided by the valuation manual.

538 (10) Notwithstanding this chapter or any general or special law to the contrary, a  
539 refiling of nonforfeiture values or their methods of computation for a previously approved policy  
540 form which involves only a change in the interest rate or mortality table used to compute  
541 nonforfeiture values shall not require refiling of other provisions of that policy form.

542 (f) In the case of a plan of life insurance which provides for future premium  
543 determination, the amounts of which are to be determined by the insurance company based on  
544 estimates of future experience, or in the case of a plan of life insurance which is of such a nature  
545 that minimum values cannot be determined by the methods described in subsections (b), (c), (d)  
546 or (e):

547 (i) the commissioner shall be satisfied that the benefits provided under the plan  
548 are substantially as favorable to policyholders and insureds as the minimum benefits otherwise  
549 required by said subsections (b), (c), (d) or (e);

550 (ii) the commissioner shall be satisfied that the benefits and the pattern of  
551 premiums of that plan are not such as to mislead prospective policyholders or insureds; and

552 (iii) the cash surrender values and paid-up nonforfeiture benefits provided by the  
553 plan shall not be less than the minimum values and benefits required for the plan computed by a  
554 method consistent with the principles of this section, as determined by regulations promulgated  
555 by the commissioner.

556 (g) Any cash surrender value and paid-up nonforfeiture benefit available under the policy  
557 in the event of default in a premium payment due at any time other than on the policy  
558 anniversary shall be calculated with allowance for the lapse of time and the payment of fractional  
559 premiums beyond the last preceding policy anniversary. All values referred to in subsections (c),  
560 (d) and (e) may be calculated upon the assumption that a death benefit is payable at the end of  
561 the policy year of death. The net value of any paid-up additions, other than paid-up term  
562 additions, shall not be less than the amounts used to provide those additions. Notwithstanding  
563 said subsection (c), additional benefits payable: (i) in the event of death or dismemberment by  
564 accident or accidental means; (ii) in the event of total and permanent disability; (iii) as  
565 reversionary annuity or deferred reversionary annuity benefits; (iv) as term insurance benefits  
566 provided by a rider or supplemental policy provision to which, if issued as a separate policy, this  
567 section would not apply; (v) as term insurance in the life on a child or on the lives of children  
568 provided in a policy on the life of a parent of the child, if that term insurance expires before the  
569 child's age is 26, is uniform in amount after the child's age is 1, and has not become paid-up by  
570 reason of the death of a parent of the child; and (vi) as other policy benefits additional to life  
571 insurance and endowment benefits, and premiums for all such additional benefits, shall be  
572 disregarded in ascertaining cash surrender values and nonforfeiture benefits required by this  
573 section and no such additional benefits shall be required to be included in any paid-up  
574 nonforfeiture benefits.

575 (h) (1) This subsection shall apply to all policies issued on or after the operative date  
576 of the valuation manual.

577 (2) Any cash surrender value available under the policy in the event of default in a  
578 premium payment due on a policy anniversary shall be in an amount which does not differ by  
579 more than .2 per cent of either the amount of insurance, if the insurance is uniform in amount, or  
580 the average amount of insurance at the beginning of each of the first 10 policy years, from the  
581 sum of the greater of 0 and the basic cash value hereinafter specified and the present value of any  
582 existing paid-up additions less the amount of any indebtedness to the company under the policy.

583 The basic cash value shall be equal to the present value, on the anniversary, of the future  
584 guaranteed benefits which would have been provided for by the policy, excluding any existing  
585 paid-up additions and before deduction of any indebtedness to the company, if there had been no  
586 default, less the then present value of the nonforfeiture factors, as defined in this section,  
587 corresponding to premiums which would have fallen due on and after the anniversary. Provided,  
588 however, that the effects on the basic cash value of supplemental life insurance or annuity  
589 benefits or of family coverage, as described in subsection (c), shall be the same as the effects  
590 specified in said subsection (c) on the cash surrender values defined in this section.

591 (3) The nonforfeiture factor for each policy year shall be an amount equal to a  
592 percentage of the adjusted premium for the policy year, as defined in subsection (e); provided,  
593 however, that no basic cash value may be less than the value which would be obtained if the  
594 adjusted premiums for the policy, as defined in subsection (e), were substituted for the  
595 nonforfeiture factors in the calculation of the basic cash value. The percentage: (i) shall be the  
596 same percentage for each policy year between the second policy anniversary and the later of

597 either the fifth policy anniversary or the first policy anniversary at which there is available under  
598 the policy a cash surrender value in an amount, before including any paid-up additions and  
599 before deducting any indebtedness, of at least .2 per cent of either the amount of insurance, if the  
600 insurance is uniform in amount, or the average amount of insurance at the beginning of each of  
601 the first 10 policy years; and (ii) shall be such that no percentage after the later of the 2 policy  
602 anniversaries specified in paragraph (2) may apply to fewer than 5 consecutive policy years.

603 All adjusted premiums and present values referred to in this subsection shall for a  
604 particular policy be calculated on the same mortality and interest bases as are used in  
605 demonstrating the policy's compliance with this section. The cash surrender values referred to in  
606 this section shall include endowment benefits provided for by the policy.

607 Any cash surrender value available other than in the event of default in a premium  
608 payment due on a policy anniversary, and the amount of a paid-up nonforfeiture benefit available  
609 under the policy in the event of default in a premium payment shall be determined in manners  
610 consistent with the manners specified for determining the analogous minimum amounts in  
611 subsections (b), (c), (d), (e) and (g). The amounts of any cash surrender values and of paid-up  
612 nonforfeiture benefits granted in connection with additional benefits such as those listed in  
613 paragraphs (1) to (6) of subsection (g) shall conform with the principles of this section.

614 (i) This section shall not apply to: reinsurance; group insurance; pure endowment;  
615 annuity or reversionary annuity contracts; a term policy of uniform amount, which provides no  
616 guaranteed nonforfeiture or endowment benefits, or renewal thereof, of not more than 20 years  
617 expiring before age 71, for which uniform premiums are payable during the entire term of the  
618 policy; a term policy of decreasing amount, which provides no guaranteed nonforfeiture or

619 endowment benefits, on which each adjusted premium, calculated as specified in subsection (e),  
620 is less than the adjusted premium so calculated, on a term policy of uniform amount, or renewal  
621 thereof, which provides no guaranteed nonforfeiture or endowment benefits, issued at the same  
622 age and for the same initial amount of insurance and for a term of 20 years or less expiring  
623 before age 71, for which uniform premiums are payable during the entire term of the policy; a  
624 policy, which provides no guaranteed nonforfeiture or endowment benefits, for which no cash  
625 surrender value, if any, or present value of a paid-up nonforfeiture benefit, at the beginning of a  
626 policy year, calculated as specified in subsections (c), (d) and (e), exceeds 2 ½ per cent of the  
627 amount of insurance at the beginning of the same policy year; or a policy which shall be  
628 delivered outside the commonwealth through an agent or other representative of the company  
629 issuing the policy.

630 For purposes of determining the applicability of this section, the age at expiration for a  
631 joint term life insurance policy shall be the age at expiration of the oldest life.

632 (j) The commissioner may, pursuant to chapter 30A, upon notice and opportunity for all  
633 interested parties to be heard, promulgate rules, regulations and orders as shall be necessary for  
634 the implementation and administration of this section.

635 SECTION 4. Subsection (e) of section 144 ½ of chapter 175 of the General Laws shall  
636 apply to all policies issued on or after the effective date of this act.