

The Commonwealth of Massachusetts

PRESENTED BY:

Aaron Michlewitz

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

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

PETITION OF:

NAME:	DISTRICT/ADDRESS:	DATE ADDED:
Aaron Michlewitz	3rd Suffolk	1/20/2017
James M. Cantwell	4th Plymouth	1/4/2019
David F. DeCoste	5th Plymouth	1/4/2019

By Mr. Michlewitz of Boston, a petition (accompanied by bill, House, No. 2969) of Aaron Michlewitz, James M. Cantwell and David F. DeCoste relative to principle-based reserving for life insurance. Financial Services.

The Commonwealth of Massachusetts

In the One Hundred and Ninetieth General Court (2017-2018)

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, as appearing in the 2014 Official
2	Edition, is hereby amended by inserting after section 9 the following section:-
3	Section 9 ¹ / ₂ . (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 $9B\frac{1}{2}$.
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, operative
 37 as of January 1, 2017, 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 effective 41 date of this section. In calculating reserve liabilities, the commissioner may use group methods 42 and approximate averages for fractions of a year or otherwise. In lieu of the valuation of the 43 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 appropriate,
 47 subject to this section issued before the effective date of this section shall be that provided by the
 48 laws in effect immediately before the effective date of this section. Subsections (d), (e) and (f)
 49 shall not apply to such policies and contracts.
- 50 (c)(1) The commissioner shall annually value, or cause to be valued, the reserve liabilities 51 for all outstanding life insurance contracts, annuity and pure endowment contracts, accident and 52 health contracts and deposit-type contracts of every company issued on or after the effective date 53 of this section. In lieu of the valuation of the reserve liabilities required of a foreign or alien 54 company, the commissioner may accept a valuation made, or caused to be made, by the

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insurance supervisory official of any state or other jurisdiction when the valuation complies withthe minimum standard provided in this section.

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

(3) Notwithstanding the valuation manual, a mortality table shall only be applied to an
 individual or group annuity or pure endowment contract subject to this subsection on a 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 effective date of this
65 section, the standard prescribed in the valuation manual is the minimum standard of valuation
66 required pursuant to subsection (c).

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

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

(i) not less than ³/₄ of the members of the NAIC voting, but not less than a majority of the
total membership; and

75 (ii) members of the NAIC representing jurisdictions totaling greater than 75 per cent of 76 the direct premiums written as reported in life, accident and health annual statements, health 77 annual statements or fraternal annual statements most recently available before the vote in clause 78 (i).

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(3) The valuation manual shall specify the following:

80 (i) the minimum valuation standards for and definitions of the policies or contracts 81 subject to subsection (c), including: (A) the commissioners reserve valuation method for life 82 insurance contracts, other than annuity contracts, subject to subsection (c); (B) the 83 commissioners annuity reserve valuation method for annuity contracts subject to said subsection 84 (c); and (C) minimum reserves for all other policies or contracts subject to said subsection (c);

85 (ii) which policies or contracts or types of policies or contracts that are subject to the 86 requirements of a principle-based valuation in paragraph (1) of subsection (f) and the minimum 87 valuation standards consistent with those requirements;

88 (iii) for policies and contracts subject to a principle-based valuation pursuant to 89 subsection (f): (A) requirements for the format of reports to the commissioner pursuant to clause 90 (iii) of paragraph (2) of subsection (f) and which shall include information necessary to 91 determine if the valuation is appropriate and in compliance with this section; (B) assumptions for 92 risks over which the company does not have significant control or influence; and (C) procedures 93 for corporate governance and oversight of the actuarial function and a process for appropriate 94 waiver or modification of those procedures;

95 (iv) for policies not subject to a principle-based valuation pursuant to subsection (f), the 96 minimum valuation standard shall either be consistent with the minimum standard of valuation

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97 before the operative date of the valuation manual, or develop reserves that quantify the benefits
98 and guarantees, and the funding, associated with the contracts and their risks at a level of
99 conservatism that reflects conditions that include unfavorable events that have a reasonable
100 probability of occurring;

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

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

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

(5) The commissioner may engage a qualified actuary, at the expense of an insurance company, to perform an actuarial examination of that company and determine the appropriateness of a reserve assumption or method used by the company or to review and determine an insurance company's compliance with the requirements of this section. The commissioner may rely upon the opinion of a qualified actuary engaged by the commissioner of another state, district or territory of the United States. For purposes of this paragraph, the term "engage" shall include employment and contracting. (6) The commissioner may require a company to change an assumption or method that is determined by the commissioner to be necessary in order to comply with the requirements of the valuation manual or this section and the company shall adjust the reserves as required by the commissioner. The commissioner may take other disciplinary action as permitted pursuant to this chapter and chapter 176D.

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

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

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

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

140	(iv) provide margins for uncertainty including adverse deviation and estimation error,
141	such that the greater the uncertainty the larger the margin and resulting reserve.
142	(2) A company using a principle-based valuation for 1 or more policies or contracts
143	subject to this section as specified in the valuation manual shall:
144	(i) establish procedures for corporate governance and oversight of the actuarial valuation
145	function consistent with those described in the valuation manual;
146	(ii) provide to the commissioner and the board of directors of the company an annual
147	certification of the effectiveness of the internal controls with respect to the principle-based
148	valuation, and those controls shall be designed to insure that all material risks inherent in the
149	liabilities and associated assets subject to that valuation are included in the valuation, and that
150	valuations are made in accordance with the valuation manual, and the certification shall be based
151	on the controls in place as of the end of the preceding calendar year; and
152	(iii) develop and file with the commissioner upon request a principle-based valuation
153	report that complies with standards prescribed in the valuation manual.
154	(3) A principle-based valuation may include a prescribed formulaic reserve component.
155	A company shall submit mortality, morbidity, policyholder behavior or expense experience and
156	other data as required by the valuation manual.
157	(g)(1) For purposes of this subsection, "regulatory agency," "law enforcement agency"
158	and the "NAIC" shall include, but shall not be limited to, employees, agents, consultants and
159	contractors of those entities. The term "confidential information" shall mean:

(i) a memorandum in support of an opinion submitted pursuant to section 9B¹/₂ and other
documents, materials and other information including, but not limited to, all working papers, and
copies thereof, created, produced or obtained by or disclosed to the commissioner or other person
in connection with the memorandum;

164 (ii) all documents, materials and other information including, but not limited to, all 165 working papers, and copies thereof, created, produced or obtained by or disclosed to the 166 commissioner or other person in the course of an examination made pursuant to paragraph (6) of 167 subsection (e), provided, that if an examination report or other material prepared in connection 168 with an examination made pursuant to section 4 is not held as private and confidential 169 information pursuant to said section 4, an examination report or other material prepared in 170 connection with an examination made pursuant to said paragraph (6) of said subsection (e) shall 171 not be considered confidential information to the same extent as if the examination report or 172 other material had been prepared pursuant to section 4;

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

(iv) a principle-based valuation report developed pursuant to clause (iii) of paragraph (2)
of subsection (f) and other documents, materials and other information including, but not limited

to, all working papers, and copies thereof, created, produced or obtained by or disclosed to thecommissioner or other person in connection with the report; and

184 (v) documents, materials, data and other information submitted by a company pursuant to 185 subsection (i) and any other documents, materials, data and other information including, but not 186 limited to, all working papers, and copies thereof, created or produced in connection with such 187 experience data, in each case that include potentially company-identifying or personally 188 identifiable information, that is provided to or obtained by the commissioner and any other 189 documents, materials, data and other information including, but not limited to, all working 190 papers, and copies thereof, created, produced or obtained by or disclosed to the commissioner or 191 other person in connection with such experience materials.

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

198 Neither the commissioner nor a person who received confidential information while
199 acting under the authority of the commissioner may testify in a private civil action concerning
200 confidential information.

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

210 The commissioner may receive documents, materials, data and other information, 211 including otherwise confidential and privileged documents, materials, data or information, from 212 the NAIC and its affiliates and subsidiaries, from regulatory or law enforcement officials of other 213 foreign or domestic jurisdictions and from the Actuarial Board for Counseling and Discipline or 214 its successor and shall maintain as confidential or privileged any document, material, data or 215 other information received with notice or the understanding that it is confidential or privileged 216 under the laws of the jurisdiction that is the source of the document, material or other 217 information.

The commissioner may enter into agreements governing sharing and use of informationconsistent with this paragraph.

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

A privilege established pursuant to the law of any state or jurisdiction that is substantially similar to the privilege established pursuant to this paragraph shall be available and enforced in a proceeding in and in any court of the commonwealth. (3) Notwithstanding paragraph (2), confidential information specified in clauses (i) and(iv) of paragraph (1):

(i) may be subject to subpoen to defend an action seeking damages from the appointed
actuary submitting the related memorandum in support of an opinion submitted pursuant to
section 9B¹/₂ or principle-based valuation report developed pursuant to clause (iii) of paragraph
(2) of subsection (f) by reason of an action required by this section or through regulation;

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

(iii) once a portion of a memorandum in support of an opinion submitted pursuant to
section 9B¹/₂ or a principle-based valuation report developed pursuant to clause (iii) of paragraph
(2) of subsection (f) is cited by the company in its marketing or is publicly volunteered to or
before a governmental agency other than a state insurance department or is released by the
company to the news media, all portions of that memorandum or report shall no longer be
confidential.

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

(2) The minimum standards for the valuation of all applicable policies and contracts
provided by the laws in effect immediately before the effective date of this section shall be
applicable for a company granted an exemption pursuant to this section or section 9B¹/₂.

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

(j) This section shall apply to all life insurance contracts, accident and health insurance
 contracts and deposit-type contracts issued on or after the effective date of this section as defined
 herein.

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

Section 9B¹/₂. (a) For purposes of this section, the definitions in subsection (a) of section
9¹/₂ shall apply unless the context clearly requires otherwise.

260 (b) After the effective date of this section, every company with outstanding life 261 insurance contracts, accident and health insurance contracts or deposit-type contracts in the 262 commonwealth and subject to regulation by the commissioner shall annually submit the opinion 263 of the appointed actuary as to whether the reserves and related actuarial items held in support of 264 the policies and contracts are computed appropriately, are based on assumptions that satisfy 265 contractual provisions, are consistent with prior reported amounts and comply with applicable 266 laws of the commonwealth. The valuation manual shall prescribe the specifics of this opinion 267 including items necessary to the scope of the opinion.

(c) Prior to the effective date of this section, the specifics of the opinion and the manner
in which the confidentiality of the memorandum in support of the opinion shall be protected shall
be as prescribed by section 9B.

271 (d) After the effective date of this section, every company with outstanding life 272 insurance contracts, accident and health insurance contracts or deposit-type contracts in the 273 commonwealth and subject to regulation by the commissioner, except as exempted in the 274 valuation manual, shall also annually include in the opinion required by subsection (b) an 275 opinion of the same appointed actuary as to whether the reserves and related actuarial items held 276 in support of the policies and contracts specified in the valuation manual, when considered in 277 light of the assets held by the company with respect to the reserves and related actuarial items 278 including, but not limited to, the investment earnings on the assets and the considerations 279 anticipated to be received and retained under the policies and contracts, make adequate provision 280 for the company's obligations under the policies and contracts including, but not limited to, the 281 benefits under and expenses associated with the policies and contracts.

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

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

If the insurance company fails to provide a supporting memorandum at the request of the commissioner within a period specified in the valuation manual or the commissioner determines

290 that the supporting memorandum provided by the insurance company fails to meet the standards 291 prescribed by the valuation manual or is otherwise unacceptable to the commissioner, the 292 commissioner may engage a qualified actuary at the expense of the company to review the 293 opinion and the basis for the opinion and prepare the supporting memorandum required by the 294 commissioner. 295 The opinion shall be in form and substance as specified in the valuation manual and 296 acceptable to the commissioner. 297 The opinion shall be submitted with the annual statement reflecting the valuation of 298 reserve liabilities for each year ending on or after the effective date of this section. 299 The opinion shall apply to all policies and contracts subject to subsection (d) in addition 300 to any other actuarial liabilities specified in the valuation manual. 301 The opinion shall be based on standards adopted from time to time by the Actuarial 302 Standards Board or its successor and on such additional standards as may be prescribed in the 303 valuation manual. 304 In the case of an opinion required to be submitted by a foreign or alien company, the 305 commissioner may accept the opinion filed by that company with the insurance supervisory 306 official of another state if the commissioner determines that the opinion reasonably meets the 307 requirements applicable to a company domiciled in the commonwealth. 308 Except in cases of fraud or willful misconduct, the appointed actuary shall not be liable 309 for damages to any person, other than the insurance company and the commissioner for any act, 310 error, omission, decision or conduct with respect to the appointed actuary's opinion.

311 Disciplinary action by the commissioner against the company or the appointed actuary312 shall be defined in regulations by the commissioner.

After the effective date of this section, a memorandum in support of an opinion submitted pursuant to section 9B¹/₂ and other documents, materials and information including, but not limited to, all working papers, and copies thereof, created, produced or obtained by or disclosed to the commissioner or other person in connection with the memorandum is deemed confidential information pursuant to clause (i) of paragraph (1) of subsection (j) of section 9¹/₂ and shall be treated and protected as required pursuant to that section.

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

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

Section 144½. (a) Section 144 shall not apply to policies issued on and after the effective date of this section. (b) In the case of policies issued on or after the effective date of this section, no policy of life insurance, except as provided in subsection (i), shall be delivered or issued for delivery in the commonwealth unless it contains in substance the following or corresponding provisions which are, in the opinion of the commissioner, at least as favorable to the defaulting or surrendering policyholder as are the minimum requirements specified here and are in compliance with subsection (h).

In the event of default in a premium payment, the company will grant, upon properrequest not later than 60 days after the due date of the premium in default, a paid-up

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

339 Upon surrender of the policy not later than 60 days after the due date of a premium 340 payment in default after premiums have been paid for at least 3 years in the case of ordinary 341 insurance or 5 years in the case of industrial insurance, the company will pay, in lieu of a paid-up 342 nonforfeiture benefit, a cash surrender value of an amount as may be hereinafter specified.

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

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

In the case of policies which cause, on a basis guaranteed in the policy, unscheduled changes in benefits or premiums, or which provide an option for changes in benefits or premiums other than a change to a new policy; a statement of the mortality table, interest rate and method 355 used in calculating cash surrender values and the paid-up nonforfeiture benefits available under 356 the policy. In the case of all other policies, a statement of the mortality table and interest rate 357 used in calculating the cash surrender values and the paid-up nonforfeiture benefits available 358 under the policy, together with a table showing the cash surrender value, if any, and paid-up 359 nonforfeiture benefit, if any, available under the policy on each policy anniversary either during 360 the first 20 policy years or during the term of the policy, whichever is shorter, such values and 361 benefits to be calculated upon the assumption that there are no dividends or paid-up additions 362 credited to the policy and that there is no indebtedness to the company on the policy.

363 A statement that the cash surrender values and the paid-up nonforfeiture benefits 364 available under the policy are not less than the minimum values and benefits required by or 365 pursuant to the insurance law of the state in which the policy is delivered; an explanation of the 366 manner in which the cash surrender values and the paid-up nonforfeiture benefits are altered by 367 the existence of any paid-up additions credited to the policy or any indebtedness to the company 368 on the policy; if a detailed statement of the method of computation of the values and benefits 369 shown in the policy is not stated therein, a statement that a method of computation has been filed 370 with the insurance supervisory official of the state in which the policy is delivered; and a 371 statement of the method to be used in calculating the cash surrender value and a paid-up 372 nonforfeiture benefit available under the policy on a policy anniversary beyond the last 373 anniversary for which values and benefits are consecutively shown in the policy.

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

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

378 (c)(1) A cash surrender value available under the policy in the event of default in a 379 premium payment due on a policy anniversary, whether or not required by subsection (b), shall 380 be an amount not less than the excess, if any, of the present value, on the anniversary, of the 381 future guaranteed benefits which would have been provided for by the policy, including any 382 existing paid-up additions, if there had been no default, over the sum of: (i) the then present 383 value of the adjusted premiums as defined in subsection (e), corresponding to premiums which 384 would have fallen due on and after the anniversary; and (ii) the amount of any indebtedness to 385 the company on the policy.

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

393 (3) For a family policy issued on or after the operative date of subsection (e), which 394 defines a primary insured and provides term insurance on the life of the spouse of the primary 395 insured expiring before the spouse reaches the age of 71, the cash surrender value referred to in 396 paragraph (1) shall be an amount not less than the sum of the cash surrender value for an 397 otherwise similar policy issued at the same age without term insurance on the life of the spouse

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and the cash surrender value as defined in paragraph (1) for a policy which provides only thebenefits otherwise provided by term insurance on the life of the spouse.

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

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

411 (e)(1) Except as provided in paragraph (7), the adjusted premiums for a policy shall be 412 calculated on an annual basis and shall be such uniform percentage of the respective premiums 413 specified in the policy for each policy year, excluding amounts payable as extra premiums to 414 cover impairments or special hazards and also excluding any uniform annual contract charge or 415 policy fee specified in the policy in a statement of the method to be used in calculating the cash 416 surrender values and paid-up nonforfeiture benefits, that the present value, at the date of issue of 417 the policy, of all adjusted premiums shall be equal to the sum of: (i) the then present value of the 418 future guaranteed benefits provided for by the policy; (ii) 1 per cent of either the amount of 419 insurance, if the insurance is uniform in amount, or the average amount of insurance at the

beginning of each of the first 10 policy years; and (iii) 125 per cent of the nonforfeiture net level premium as hereinafter defined, provided, however, that in applying this percentage no nonforfeiture net level premium shall be deemed to exceed 4 per cent of either the amount of insurance, if the insurance is uniform in amount, or the average amount of insurance at the beginning of each of the first 10 policy years.

425 The date of issue of a policy for the purpose of this section shall be the date as of which426 the rated age of the insured is determined.

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

431 (3) In the case of policies which cause, on a basis guaranteed in the policy, unscheduled 432 changes in benefits or premiums, or which provide an option for changes in benefits or premiums 433 other than a change to a new policy, the adjusted premiums and present values shall initially be 434 calculated on the assumption that future benefits and premiums do not change from those 435 stipulated at the date of issue of the policy. At the time of any change in the benefits or 436 premiums, the future adjusted premiums, nonforfeiture net level premiums and present values 437 shall be recalculated on the assumption that future benefits and premiums do not change from 438 those stipulated by the policy immediately after the change.

(4) Except as otherwise provided in paragraph (7), the recalculated future adjusted
premiums for a policy shall be a uniform percentage of the respective future premiums specified
in the policy for each policy year, excluding amounts payable as extra premiums to cover

impairments and special hazards, and also excluding any uniform annual contract charge or policy fee specified in the policy in a statement of the method to be used in calculating the cash surrender values and paid-up nonforfeiture benefits, that the present value, at the time of change to the newly defined benefits or premiums, of all future adjusted premiums shall be equal to the excess of the sum of the then present value of the then future guaranteed benefits provided for by the policy and the additional expense allowance, if any, over the then cash surrender value, if any, or present value of any paid-up nonforfeiture benefit under this policy.

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

456 (6) The recalculated nonforfeiture net level premium shall be equal to the result obtained 457 by dividing (i) by (ii), where (i) equals the sum of the nonforfeiture net level premium applicable 458 before the change times the present value of an annuity of 1 per annum payable on each 459 anniversary of the policy on or subsequent to the date of the change on which a premium would 460 have fallen due had the change not occurred and the present value of the increase in future 461 guaranteed benefits provided for by the policy, and (ii) equals the present value of an annuity of 462 1 per annum payable on each anniversary of the policy on or subsequent to the date of change on 463 which a premium falls due.

464 (7) Notwithstanding this section or any other general or special law to the contrary, in the 465 case of a policy issued on a substandard basis which provides reduced graded amounts of 466 insurance so that, in each policy year, the policy has the same tabular mortality cost as an 467 otherwise similar policy issued on the standard basis which provides higher uniform amount of 468 insurance, adjusted premiums and present values for the substandard policy may be calculated as 469 if it were issued to provide higher uniform amounts of insurance on the standard basis.

470 (8) All adjusted premiums and present values referred to in this section shall for all 471 policies: (i) of ordinary insurance be calculated on the basis of the Commissioners 1980 Standard 472 Ordinary Mortality Table or, at the election of the company for specified plans of life insurance, 473 the Commissioners 1980 Standard Ordinary Mortality Table with 10 year select mortality 474 factors; (ii) of industrial insurance be calculated on the basis of the Commissioners 1961 475 Standard Industrial Mortality Table; and (iii) issued in a particular calendar year be calculated on 476 the basis of a rate of interest not exceeding the nonforfeiture interest rate as defined in this 477 section, for policies issued in that calendar year.

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

Under a paid-up nonforfeiture benefit, including any paid-up dividend additions, any cash surrender value available, whether or not required by subsection (b), shall be calculated on the basis of the mortality table and rate of interest used in determining the amount of a paid-up nonforfeiture benefit and paid-up dividend additions. A company may calculate the amount of a guaranteed paid-up nonforfeiture benefit
including paid-up additions under the policy on the basis of an interest rate not lower than that
specified in the policy for calculating cash surrender values.

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

493 For insurance issued on a substandard basis, the calculation of adjusted premiums and494 present values may be based on appropriate modifications of the aforementioned tables.

495 For policies issued on or after the effective date of this section, the valuation manual shall 496 provide the Commissioners Standard Mortality Table for use in determining the minimum 497 nonforfeiture standard that may be substituted for the Commissioners 1980 Standard Ordinary 498 Mortality Table with or without 10 year select mortality factors or for the Commissioners 1980 499 Extended Term Insurance Table. If the commissioner approves by regulation a commissioners 500 standard ordinary mortality table adopted by the NAIC for use in determining the minimum 501 nonforfeiture standard for policies issued on or after the effective date of this section then that 502 minimum nonforfeiture standard supersedes the minimum nonforfeiture standard provided by the 503 valuation manual.

504 For policies issued on or after the effective date of this section the valuation manual shall 505 provide the Commissioners Standard Mortality Table for use in determining the minimum 506 nonforfeiture standard that may be substituted for the Commissioners 1961 Standard Industrial 507 Mortality Table or the Commissioners 1961 Industrial Extended Term Insurance Table. If the 508 commissioner approves by regulation a Commissioners Standard Industrial Mortality Table 509 adopted by the NAIC for use in determining the minimum nonforfeiture standard for policies 510 issued on or after the effective date of this section then that minimum nonforfeiture standard 511 supersedes the minimum nonforfeiture standard provided by the valuation manual.

512 (9) For policies issued on and after the effective date of this section, the nonforfeiture 513 interest rate per annum for a policy issued in a particular calendar year shall be provided by the 514 valuation manual.

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

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

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

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

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

533 (g) Any cash surrender value and paid-up nonforfeiture benefit available under the policy 534 in the event of default in a premium payment due at any time other than on the policy 535 anniversary shall be calculated with allowance for the lapse of time and the payment of fractional 536 premiums beyond the last preceding policy anniversary. All values referred to in subsections (c), 537 (d) and (e) may be calculated upon the assumption that a death benefit is payable at the end of 538 the policy year of death. The net value of any paid-up additions, other than paid-up term 539 additions, shall not be less than the amounts used to provide those additions. Notwithstanding 540 said subsection (c), additional benefits payable: (i) in the event of death or dismemberment by 541 accident or accidental means; (ii) in the event of total and permanent disability; (iii) as 542 reversionary annuity or deferred reversionary annuity benefits; (iv) as term insurance benefits 543 provided by a rider or supplemental policy provision to which, if issued as a separate policy, this 544 section would not apply; (v) as term insurance in the life on a child or on the lives of children 545 provided in a policy on the life of a parent of the child, if that term insurance expires before the 546 child's age is 26, is uniform in amount after the child's age is 1, and has not become paid-up by 547 reason of the death of a parent of the child; and (vi) as other policy benefits additional to life 548 insurance and endowment benefits, and premiums for all such additional benefits, shall be 549 disregarded in ascertaining cash surrender values and nonforfeiture benefits required by this 550 section and no such additional benefits shall be required to be included in any paid-up 551 nonforfeiture benefits.

(h) (1) This subsection shall apply to all policies issued on or after the effective date ofthis section.

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

560 The basic cash value shall be equal to the present value, on the anniversary, of the future 561 guaranteed benefits which would have been provided for by the policy, excluding any existing 562 paid-up additions and before deduction of any indebtedness to the company, if there had been no 563 default, less the then present value of the nonforfeiture factors, as defined in this section, 564 corresponding to premiums which would have fallen due on and after the anniversary. Provided, 565 however, that the effects on the basic cash value of supplemental life insurance or annuity 566 benefits or of family coverage, as described in subsection (c), shall be the same as the effects 567 specified in said subsection (c) on the cash surrender values defined in this section.

(3) The nonforfeiture factor for each policy year shall be an amount equal to a percentage of the adjusted premium for the policy year, as defined in subsection (e); provided, however, that no basic cash value may be less than the value which would be obtained if the adjusted premiums for the policy, as defined in subsection (e), were substituted for the nonforfeiture factors in the calculation of the basic cash value. The percentage: (i) shall be the same percentage for each policy year between the second policy anniversary and the later of either the fifth policy anniversary or the first policy anniversary at which there is available under the policy a cash surrender value in an amount, before including any paid-up additions and before deducting any indebtedness, of at least .2 per cent of either the amount of insurance, if the insurance is uniform in amount, or the average amount of insurance at the beginning of each of the first 10 policy years; and (ii) shall be such that no percentage after the later of the 2 policy anniversaries specified in paragraph (2) may apply to fewer than 5 consecutive policy years.

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

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

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

596 endowment benefits, on which each adjusted premium, calculated as specified in subsection (e), 597 is less than the adjusted premium so calculated, on a term policy of uniform amount, or renewal 598 thereof, which provides no guaranteed nonforfeiture or endowment benefits, issued at the same 599 age and for the same initial amount of insurance and for a term of 20 years or less expiring 600 before age 71, for which uniform premiums are payable during the entire term of the policy; a 601 policy, which provides no guaranteed nonforfeiture or endowment benefits, for which no cash 602 surrender value, if any, or present value of a paid-up nonforfeiture benefit, at the beginning of a 603 policy year, calculated as specified in subsections (c), (d) and (e), exceeds 2 ¹/₂ per cent of the 604 amount of insurance at the beginning of the same policy year; or a policy which shall be 605 delivered outside the commonwealth through an agent or other representative of the company 606 issuing the policy.

607 For purposes of determining the applicability of this section, the age at expiration for a608 joint term life insurance policy shall be the age at expiration of the oldest life.

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

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