

# **Economic Impact Analysis Virginia Department of Planning and Budget**

18 VAC 60-20 – Regulations Governing the Practice of Dentistry and Dental Hygiene Department of Health Professions

October 3, 2004

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.G of the Administrative Process Act and Executive Order Number 21 (02). Section 2.2-4007.G requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. The analysis presented below represents DPB's best estimate of these economic impacts.

# **Summary of the Proposed Regulation**

The Board of Dentistry (board) proposes to: 1) allow applicants who successfully complete the board-approved examinations five or more years prior to the date of receipt of their applications to avoid retaking the exam if they complete board-approved continuing education, 2) allow applicants who successfully complete the board-approved examinations five or more years prior to the date of receipt of their applications to avoid retaking the exam if they have maintained continuous practice in 48 out of the past 60 months, 3) allow dental hygienists to provide a mailing address with a post office box numbers rather than a street address, 4) add sponsors to the list from which the board will approve continuing education credit, 5) eliminate the board's ongoing function in approving continuing education programs, 6) require that all licensure applicants submit a current report from the Healthcare Integrity and Protection Data Bank, 7) require candidates for dentistry licensure who have failed any section of the board-approved examination three times to complete a minimum of 14 hours of additional clinical training in each section of the examination to be retested, in order to be approved by the board to

sit for the examination a fourth time, 8) require candidates for dental hygienist licensure who have failed any section of the board-approved examination three times to complete a minimum of 7 hours of additional clinical training in each section of the examination to be retested, in order to be approved by the board to sit for the examination a fourth time, 9) eliminate the examination on knowledge of Virginia's laws and regulations, 10) require dentists who administer general anesthesia or conscious sedation to hold current certification in advanced resuscitative techniques, such as Advanced Cardiac Life Support or Pediatric Advanced Life Support, 11) require that ancillary personnel who assist in the administration and monitoring of conscious or deep sedation have Basic Cardiac Life Support (CPR) certification or hold certification as a certified anesthesia assistant, 12) add one method and rescind another method for receiving radiation certification, 13) require all licensed dentists and dental hygienist to have training in CPR, 14) permit dental hygienists to carry over continuing education credits to the following year if they obtain more than the required minimum number of credits in a given year, 15) limit the number of continuing education hours that an individual applying for license reinstatement or reactivation must complete, 16) require that prior to administration of sedation or general anesthesia, the dentist shall obtain informed, written consent from the patient or other responsible party, and 17) make several clarifications.

# **Estimated Economic Impact**

## **Exemptions from Retaking the Licensure Examination**

Unlike dental hygienists, dentists cannot obtain licensure by endorsement under these regulations. On the other hand, the dental examinations required by the board are those administered by the Southern Regional Testing Agency (SRTA). In addition to Virginia, Arkansas, Georgia, Kentucky, South Carolina, and Tennessee are members of SRTA. Dentists from these states will likely have passed the SRTA exams in order to have become licensed in their home state. If they passed the SRTA exams within the last five years, they will not need to retake the exams to obtain licensure in Virginia. The current regulations also permit applicants who successfully complete the board-approved examinations five or more years prior to the date of the board's receipt of their applications for licensure to waive retaking the board-approved examinations (SRTA) if they demonstrate that they have maintained continuous clinical, ethical,

<sup>&</sup>lt;sup>1</sup> Ibid

and legal practice since passing the approved exam. Thus, licensed dentists from Arkansas, Georgia, Kentucky, South Carolina, and Tennessee who obtained licensure by passing the SRTA exams and have maintained continuous clinical, ethical, and legal practice since can obtain a license in Virginia without having to take more examinations.

The board proposes to allow applicants who passed the board-approved (SRTA) examinations five or more years ago to waive retaking the exams if they have maintained clinical, ethical, and legal practice for 48 of the past 60 months, instead of the current continuous practice requirement. The board also proposes to permit applicants who passed the boardapproved (SRTA) examinations five or more years ago and have not been in practice for at least 48 of the past 60 months to take board-approved continuing education in lieu of retaking the exams. The required continuing education consists of 15 hours for each year in which the applicant's license has been inactive, not to exceed a total of 45 hours; where at least 15 must be earned in the most recent 12 months ands the remainder within the 36 months preceding the application. By relaxing the continuous practice requirement and by allowing continuing education credits to serve in lieu of retaking the SRTA examinations, more dentists currently licensed in Arkansas, Georgia, Kentucky, South Carolina, and Tennessee may seek to become licensed in Virginia and provide dental services in the Commonwealth. To the extent that the proposed changes effectively increase the number of dentists from these states that obtain Virginia licensure and begin practicing in the Commonwealth, the supply of dental services in Virginia will increase. Increasing the supply of a good or service will tend to reduce its market price. If the cost of dental services is reduced, more people will be able to afford dental care, consequently receiving the benefit of improved health.

Typically, no demonstration of knowledge is required to obtain continuing education credits. Only attendance is mandated. Thus, accepting continuing education credits in lieu of retaking exams is effectively eliminating a requirement to demonstrate knowledge. On the other hand, accepting continuing education credits in lieu of retaking exams for dentists who are applying for licensure in Virginia and are licensed in Arkansas, Georgia, Kentucky, South Carolina, and Tennessee, but have practiced actively for less than four of the previous five years, treats these dentists more in line with Virginia dentists with inactive licensure status. Dentists

<sup>&</sup>lt;sup>2</sup> Source: the Southern Regional Testing Agency Website, www.srta.org

with an inactive Virginia license must complete up to 45 hours of continuing education in order to reactivate their licenses and resume practice.

Dentists from all other states (non-SRTA states), including the neighboring states of Maryland and North Carolina, must take and pass examinations in order to obtain licensure in Virginia, regardless of their accomplishments and the content of the licensure-qualifying examinations they have passed in their home states. This discourages the potential entry of highly skilled dentists into Virginia. For example, excellent dentists based in the Maryland suburbs of Washington, D.C. may consider opening offices in Northern Virginia, but are discouraged from doing so due to the time and costs associated with taking additional licensure examinations in order to obtain Virginia licensure. Or for another example, say an outstanding dentist who has passed very rigorous licensure examinations in her home non-SRTA state is contemplating a move to the Commonwealth and practicing here because her spouse has received an interesting employment offer in Virginia. The time and costs required for preparation, as well as perhaps annoyance at being required to take unnecessary examinations, may discourage this highly qualified dentist from seeking licensure and providing dental services in Virginia.

Besides SRTA, there are three other regional examining boards: 1) the North East Regional Board (NERB), with member states Connecticut, Illinois, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and the District of Columbia, 2) the Central Regional Dental Testing Service (CRDTS), with member states Colorado, Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Wisconsin, and Wyoming, and 3) the Western Regional Examining Board (WREB), with member states Alaska, Arizona, Idaho, Montana, New Mexico, Oklahoma, Oregon, Texas, Utah, and Washington. The remaining ten states, Alabama, California, Delaware, Hawaii, Florida, Indiana, Louisiana, Mississippi, Nevada, and North Carolina do not belong to a regional board. Unless the NERB, CRDTS, and WREB exams, and the licensing exams for the unaligned states, are significantly less stringent than the SRTA exams, there is no health and safety justification for mandating that licensed dentists from these states who have passed their state's licensing exams take and pass the SRTA exams for Virginia licensure. By discouraging non-SRTA state dentists from seeking licensure in Virginia, the

quantity and perhaps quality of dental services in Virginia are lower than they otherwise would be, while the costs of dental services are higher.

Discouraging highly skilled dentists from practicing in Virginia clearly reduces the supply of dental services in Virginia. If there are fewer suppliers of a good or service and the demand for the good or service has not changed, then it can be expected that the market price will increase.<sup>3</sup> Thus, by discouraging highly skilled dentists who have passed licensure examinations in other states that are at least as rigorous as Virginia's from providing dental services in the Commonwealth, the prices paid for dental services in Virginia are likely higher than they would otherwise be. If the cost of dental services is increased, fewer people are able to afford dental care; consequently fewer people will receive the health benefits of dental care.

The overall average quality of dental services may be reduced as well. This is the case for two reasons. First, discouraging dentists who have passed licensure examinations that are more rigorous than Virginia's from seeking licensure in the Commonwealth results in fewer dentists providing services in Virginia who have met and passed a higher standard indicating knowledge and skills than is required here. Second, when there is greater competition in the supply of a good or service, suppliers are under greater pressure to produce high quality in order to keep and obtain customers.

#### **Dental Hygienists' Mailing Address**

Currently, dental hygienists are required to provide the board with their current resident address. The regulations specifically state, "No post office box numbers are accepted." Licensee information is posted on the Department of Health Professions' (department) website. Since no post office box numbers are accepted, the current requirement effectively requires dental hygienists to have their home address, including the street name and number, published on the Internet. Some dental hygienists have expressed serious privacy and safety concerns about having their home address readily available on the Internet. Such available information may increase the likelihood of harassment at home, for example. The board proposes to instead require that dental hygienists provide the board with their current mailing address. The "No post office box numbers are accepted" language is deleted. This proposal creates a net benefit since

<sup>&</sup>lt;sup>3</sup> The U.S. Department of Justice, Federal Trade Commission report "Improving Health Care: A Dose of Competition," July 2004, points out "that limits on entry increase health care costs."

the hygienists' privacy and safety concerns are alleviated by the removal of the home street address requirement, and the board and department find the proposed required information to be adequate.

## **Continuing Education**

As stated above, dental hygienists must have 15 hours of continuing education each year. The board proposes to amend the regulations so that if a dental hygienist takes more than 15 hours of CE in a given year, she can apply those hours in excess of 15 to the 15-hour requirement in the following year. This proposal is beneficial for dental hygienists in that it introduces flexibility in when they may schedule their continuing education. Since the timing of other responsibilities and opportunities may be less flexible, this potentially allows dental hygienists to use their time more productively.

These regulations contain a list of approved sponsors of continuing education. The board proposes to add The MCV Orthodontic and Research Foundation, The Dental Assisting National Board, the American Safety and Health Institute, accredited dental schools or specialty residency programs, and a regional testing agency when a licensee is serving as an examiner in a clinical exam to the list of sponsors from which the board will approve continuing education credit. These organizations will benefit in that being listed as an approved continuing education sponsor will likely increase demand by Virginia licensees for their courses, or in the case of the regional testing agencies, willingness to participate as an examiner in a clinical exam.

In the current list of approved continuing education sponsors, "any other board approved programs" is included. The board proposes to strike that statement from the list. According to the department, the review and approval process is time-consuming for staff and board members, and several of the existing approved organizations and entities will allow outside providers to offer continuing education courses one they approve them. Some potential continuing education sponsors may wish to become approved independent of the existing approved organizations and entities. These potential continuing education sponsors will incur some cost in that this option will no longer be available. The value of this option to potential continuing education sponsors is not known, thus an accurate comparison to the cost savings to the department and the board cannot be made.

## **Healthcare Integrity and Protection Data Bank report**

The board proposes to require that all applicants for either dental or dental hygienist licensure submit a current report from the Healthcare Integrity and Protection Data Bank (HIDB). The HIDP report lists disciplinary actions in other states. The cost for the applicant is \$8.50.4 By obtaining the report the board will be better able to be kept aware of possible past poor practice by applicants for licensure. The improved information on the applicant's work history will allow the board to better evaluate whether applicants are likely to put the public at risk due to unethical or grossly incompetent service. Since the cost for the applicant is relatively small, and the benefit to the Commonwealth is potentially large, this proposed amendment will likely produce a net benefit.

### **Remedial Training**

Under the current regulations, a candidate who repeatedly fails sections of the dental or dental hygienist licensure exams may continue to retake those sections until he passes. In regard to the dental licensure exam, the board proposes that "If the candidate has failed any section of the board-approved examination three times, he shall complete a minimum of 14 hours of additional clinical training in each section of the examination to be retested, in order to be approved by the board to sit for the examination a fourth time." The proposed minimum amount of remedial clinical training for candidates who have failed a section of the dental hygienist exam three times is 7 hours. In dental and dental hygienist exams, candidates perform procedures on actual patients. The patients are typically individuals that have volunteered to receive dental work by students in exchange for reduced fees or no payment.<sup>5</sup>

Allowing examinees to repeatedly perform failing-quality dental work on live patients clearly has a negative impact on those patients. Requiring additional clinical training for candidates who repeatedly fail will likely reduce the amount of poor dental work performed on the patients receiving reduced fee dental services during examinations. This is the case for two reasons: 1) additional hours of training may result in improved performance, and 2) the additional time and cost may discourage some repeated exam-failing candidates from retaking the exam. The likely reduction in failing-quality dental and dental hygienist work is particularly

<sup>&</sup>lt;sup>4</sup> Source: Department of Health Professions

<sup>&</sup>lt;sup>5</sup> Ibid

beneficial for Virginians of lesser means, since people with fewer resources are more likely to choose dental services from dental students in exchange for reduced fees or no payment.

Additional clinical training costs about \$100 per hour for both dentists and dental hygienists.<sup>6</sup> Thus candidates who choose to pursue a fourth try at a previously failed section will pay about \$1,400 in fees for the proposed required additional 14 hours of clinical training. The \$1,400 figure does not include the value of the candidates' time and travel costs associated with obtaining and taking the additional clinical training. According to the department, it is very unusual for candidates to fail the same section three times. Thus, this proposal will be applicable on only rare occasions.

## **Jurisprudence Examination**

All applicants for licensure must currently pass an examination on the content of the applicable Virginia dental or dental hygiene laws and regulations in order to obtain licensure. The board proposes to no longer require that applicants take such an exam. Instead, applicants must attest to having read, understood, and kept current with the applicable Virginia dental or dental hygiene laws and regulations. Eliminating the jurisprudence exam requirement saves applicants the exam fee as well as the time of taking the exam and traveling to and from the test center. The test fee is \$55 and it takes approximately one hour to complete the exam.<sup>7</sup> According to the department testing centers exist throughout the Commonwealth. In addition, applicants will likely spend less time reading the rules and regulations prior to attesting to their understanding, than they currently spend studying for the jurisprudence exam.

Eliminating the jurisprudence exam requirement will also likely result in some dentists and dental hygienists not understanding Virginia's laws and regulations as well as they would with the requirement. Attesting to understanding documents does not provide the same assurance of knowledge as passing a test on its contents. The impact of some dentists and dental hygienists not understanding Virginia's laws and regulations as well as they would otherwise is unknown. The impact depends on how many dentists and dental hygienists are less well informed once the change takes effect, what topics they are less well informed about, whether

<sup>7</sup> Ibid

<sup>&</sup>lt;sup>6</sup> Ibid

being less well-informed affects their actions, and how their actions change if they change. None of these are factors are known.

### Anesthesia, Advanced Cardiac Life Support and Basic Cardiac Life Support

The board proposes to require that dentists who administer either deep sedation/general anesthesia or conscious sedation hold current certification in advanced resuscitative techniques, such as courses in Advanced Cardiac Life Support (ACLS) or Pediatric Advanced Life Support (PALS) from the American Heart Association. This proposal is based upon the recommendation of a panel assembled by the board that consisted of dental school faculty and practicing oral and maxillofacial surgeons. It was the judgment of the panel that dentists who have not demonstrated the knowledge necessary to obtain certification potentially put their patients health at risk. This certification is already required for physicians who administer sedation. All or nearly all oral and maxillofacial surgeons in Virginia hold certification in ACLS or PALS.<sup>8</sup> This is due to the surgeons' belief in its necessity, as well as its requirement by malpractice insurance companies.<sup>9</sup> Thus, this proposal will most likely not affect oral and maxillofacial surgeons. The panel believes that some general dentistry practitioners who administer conscious sedation may not be certified in ACLS or PALS. The panel does not have a research estimate of the safety risk posed by dentists administering conscious sedation without ACLS or PALS certification, but believes that it is significant.

ACLS certification typically requires 16 hours of class with fees from \$250 to \$300.<sup>10</sup> PALS certification requires additional time and fees.<sup>11</sup> In addition to fees, dentists' time also has value. The mean hourly wage for dentists in Virginia is \$57.73.<sup>12</sup> Assuming that the value of a dentist's time is equal to his mean hourly wage, and not accounting for travel expenses, it would cost a dentist \$923.68<sup>13</sup> on average to comply with the proposed certification requirement. Since estimates of dentists' improved ability to handle adverse reactions to conscious sedation due to ACLS or PALS certification are unavailable, an accurate comparison of the benefit of requiring ACLS or PALS certification to its cost cannot be made.

<sup>&</sup>lt;sup>8</sup> Source: Board of Dentistry's anesthesia panel

<sup>9</sup> Ibid

<sup>&</sup>lt;sup>10</sup> Source: Department of Health Professions

<sup>11</sup> Ibid

<sup>&</sup>lt;sup>12</sup> Source: U.S. Department of Labor, Bureau of Labor Statistics, 2001 State Occupational Employment and Wage

 $<sup>^{13}</sup>$  16 x \$57.73 = \$923.68

The board also proposes to require that ancillary personnel who assist in the administration and monitoring of conscious or deep sedation have Basic Cardiac Life Support (CPR) certification or hold certification as a certified anesthesia assistant (CAA). Having more than one person present who can perform CPR may help improve survival chances for someone in cardiac arrest. Additionally, if the dentist administering anesthesia becomes incapacitated, it can be beneficial to have another individual present who can help in resuscitation. The panel believes that it is common, but not universal, for ancillary personnel to have at least CPR training.

CPR certification typically requires 8 hours of class at a cost of \$150 to \$200.<sup>14</sup> CAA requires more time and higher fees.<sup>15</sup> The mean hourly wage for dental assistants in Virginia is \$12.95<sup>16</sup> Assuming that the value of a dental assistant's time is equal to his mean hourly wage, and not accounting for travel expenses, it would cost a dental assistant \$207.20<sup>17</sup> on average to comply with the proposed certification requirement. Since estimates of improved health outcomes due to the ancillary personnel who assist in the administration and monitoring of conscious or deep sedation having had training in CPR are not available, an accurate comparison of the benefit of requiring this certification to its cost cannot be made.

The board also proposes to require that all licensed dentists and dental hygienists have training in at least CPR. According to the board the performance of a dental or hygiene procedure can trigger a cardiopulmonary event, to which the licensee must be able to respond. Since hygienists are now permitted to practice under general supervision (without the physical presence of a dentist), they may be the only licensees available when such an event occurs. The cost of obtaining CPR certification is described above. The probability of a cardiopulmonary event occurring during a dental or hygiene procedure not involving sedation is not known. Thus, the an accurate estimate of the benefit of requiring that all licensed dentists and dental hygienists have training in at least CPR cannot be made.

The board proposes to require that prior to administration of sedation or general anesthesia, that the dentist discuss the risks, benefits and alternatives and obtain informed,

<sup>&</sup>lt;sup>14</sup> Source: Department of Health Professions

<sup>15</sup> Ibid

<sup>&</sup>lt;sup>16</sup> Source: U.S. Department of Labor, Bureau of Labor Statistics, 2001 State Occupational Employment and Wage Estimates

written consent from the patient. This proposed requirement is identical to a rule in regulations governing administration of sedation or anesthesia under the Board of Medicine. This proposal will likely produce a net benefit since the patient will be able to make a better-informed decision on whether to proceed with the sedation or anesthesia and the dental procedure, while the cost will consist of essentially just a small amount of time.

Under the current regulations, in order for a dentist to be permitted to administer conscious sedation, she must either complete all the requirements to qualify for administration of deep sedation/general anesthesia, or complete the conscious sedation training set by the American Dental Association's Guidelines for Teaching the Comprehensive Control of Anxiety and Pain in Dentistry in effect at the time training occurred, while enrolled at an accredited dental program or while enrolled in a post-doctoral university or teaching hospital program. The board proposes to add another option to satisfy the educational credential required to administer conscious sedation. Under this option the dentist would complete an approved continuing education course of 60 hours of didactic instruction, plus the management of at least 20 patients, in parenteral conscious sedation. The course must be consistent with guidelines of the American Dental Association on teaching the comprehensive control of anxiety and pain in dentistry. Acceptance of such a credential will enable the practicing dentist who wants to expand her ability to administer sedation the opportunity to obtain the necessary training without having to return to school for an advanced dental education program. To the extent that receiving training by this method enables these dentists to offer conscious sedation services without increased risk to the patients versus obtaining training through the currently available option, the proposal will create a net benefit in that additional optional services will be available to patients.

#### **Emergency Equipment when Sedation Is Used**

The aforementioned panel of oral and maxillofacial surgeons and dentistry professors determined that in order to best ensure the health and safety of patients, dentists who administer deep sedation/general anesthesia should be required to maintain the following additional emergency equipment in their dental facility: 1) pulse oximetry 2) blood pressure monitoring equipment, 3) appropriate emergency drugs for patient resuscitation, 4) EKG monitoring equipment and temperature measuring devices, 5) pharmacologic antagonist agents, 6) external

 $<sup>^{17}</sup>$  16 x \$12.95 = \$207.20

defibrillator (manual or automatic), and 7) for intubated patients, an End-Tidal CO<sup>2</sup> monitor. According to testimony from oral and maxillofacial surgeons who administer general anesthesia, such equipment is standard in offices where outpatient surgery is performed. The department provided the following cost estimates for the proposed additional required emergency equipment: 1) \$50 or less for pulse oximetry 2) \$50 or less for blood pressure monitoring equipment, 3) \$ (figure to be supplied by the department) for appropriate emergency drugs for patient resuscitation, 4) \$ (figure to be supplied by the department) for EKG monitoring equipment and temperature measuring devices, 5) \$50 or less for pharmacologic antagonist agents, 6) \$1,100 for an external defibrillator (manual or automatic), and 7) \$850 for an End-Tidal CO<sup>2</sup> monitor.

The panel also determined that in order to best ensure the health and safety of patients, dentists who administer conscious sedation should be required to maintain the following additional emergency equipment in their dental facility: 1) pulse oximetry, 2) blood pressure monitoring equipment, 3) appropriate emergency drugs for patient resuscitation, and 4) pharmacologic antagonist agents. As mentioned above, the estimated costs for these items are 1) \$50 or less, 2) \$50 or less, 3) \$ (figure to be supplied by the department), and 4) \$50 or less, respectively.

The benefits of requiring the proposed additional emergency equipment for dentists who administer deep sedation/general anesthesia or conscious sedation depend on the probability of each item preventing adverse health outcomes, and the value placed on the prevention of those adverse health outcomes. The probability of each item preventing adverse health outcomes depends on both the probability that it would be needed at any given time, and the probability that the item would be successful in preventing the potential adverse health outcome in question. Since accurate estimates of the benefits of each item are not currently available, an accurate comparison of the benefits with the above-described costs cannot be made at this time.

#### **Radiation Certification**

Under the current regulations there are four methods by which an individual may become certified to place or expose dental X-ray film: 1) satisfactorily complete a course or examination recognized by the Commission on Dental Accreditation of the American Dental Association, 2)

<sup>&</sup>lt;sup>18</sup> Source: Department of Health Professions

be certified by the American Registry of Radiologic Technologists, 3) satisfactorily complete a course and pass an examination in compliance with guidelines provided by the board, or 4) pass the board's examination in radiation safety and hygiene followed by on the job training. According to the department, the board's exam is very rarely requested. In order to save on the costs of maintaining the rarely used exam, the board proposes to discontinue it and eliminate the current fourth option for obtaining radiation certification. The board proposes to introduce a new fourth option, satisfactory completion of a radiation course and passage of an exam given by the Dental Assisting National Board. Since the board exam is very rarely used and it is costly to maintain, discontinuing the option to gain radiation certification via a board exam will likely produce a net benefit. Adding the Dental Assisting National Board as an approved source from which to obtain radiation certification can be beneficial to the extent that individuals will find it an attractive option.

## **Businesses and Entities Affected**

The proposed amendments affect the 5,390 licensed dentists, 3,709 licensed dental hygienists, their patients and practices, dental schools, dental hygienist schools, and their students and faculty.

# **Localities Particularly Affected**

The proposed regulations affect all Virginia localities.

# **Projected Impact on Employment**

By relaxing the continuous practice requirement and by allowing continuing education credits to serve in lieu of retaking the SRTA examinations, more dentists currently licensed in Arkansas, Georgia, Kentucky, South Carolina, and Tennessee may seek to become licensed and open practices or join current practices in Virginia. The total number of new individuals who open or join dental practices in the Commonwealth due to this change is likely to be small. The addition of a small number of new dentists practicing in Virginia would likely prompt the hiring of a small number of new support personnel, such as dental hygienists and dental assistants.

The proposals to require dentists who administer either deep sedation/general anesthesia or conscious sedation hold current certification in advanced resuscitative techniques, such as courses in Advanced Cardiac Life Support (ACLS) or Pediatric Advanced Life Support (PALS)

from the American Heart Association and to require that ancillary personnel who assist in the administration and monitoring of conscious or deep sedation have Basic Cardiac Life Support (CPR) certification or hold certification as a certified anesthesia assistant (CAA) will provide additional demand for these services from the organizations that provide them. The proposal that all dentists have CPR training will also create additional demand for this training from the organizations that provide it. Employment for the providers of these services will likely increase to satisfy the increased demand.

The proposals to require additional emergency equipment for dentists who administer deep sedation/general anesthesia or conscious sedation will increase demand for the producers of pulse oximetry, blood pressure monitoring equipment, appropriate emergency drugs for patient resuscitation, EKG monitoring equipment and temperature measuring devices, pharmacologic antagonist agents, external defibrillators, and End-Tidal CO<sup>2</sup> monitors. Employment for the providers of these products may consequently increase.

## **Effects on the Use and Value of Private Property**

A small number of new dental practices may be established or expanded due to the proposed relaxation of the continuous practice requirement and the permitting of continuing education credits to serve in lieu of retaking the SRTA examinations.

The value of the MCV Orthodontic and Research Foundation, the Dental Assisting National Board, the American Safety and Health Institute, and accredited dental schools or specialty residency programs may increase somewhat due to increased demand for their continuing education courses stemming from the proposal to list those organizations as approved continuing education sponsors. The value of the Dental Assisting National Board may also increase if their listing as an approved source from which to obtain radiation certification produces new demand for their services.

The proposals to require dentists who administer either deep sedation/general anesthesia or conscious sedation hold current certification in advanced resuscitative techniques, such as courses in ACLS or PALS from the American Heart Association and to require that ancillary personnel who assist in the administration and monitoring of conscious or deep sedation have CPR certification or hold certification as a CAA will provide additional demand for these services from the organizations that provide them. The proposal that all dentists have CPR

training will also create additional demand for this training from the organizations that provide it. The value of these organizations will consequently increase.

The proposals to require additional emergency equipment for dentists who administer deep sedation/general anesthesia or conscious sedation will increase demand for the producers of pulse oximetry, blood pressure monitoring equipment, appropriate emergency drugs for patient resuscitation, EKG monitoring equipment and temperature measuring devices, pharmacologic antagonist agents, external defibrillators, and End-Tidal CO<sup>2</sup> monitors. The value of these producers will consequently increase.