

Washington State's Oral Health Workforce: **Results of a Statewide Data Gathering, Analysis and Reporting Process**

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UNIVERSITY OF WASHINGTON CENTER FOR HEALTH
WORKFORCE STUDIES

Funding Source

- Washington State Department of Health
 - through a grant from the US DHHS Health Resources and Services Administration



Purpose of the Project

- Describe the types and characteristics of providers delivering oral health care in Washington
- Describe the programs supporting delivery of oral health care to underserved populations
- Identify factors that might indicate future oral health workforce gaps
- Project impact of UW School of Dentistry graduations on dentist supply to 2027



Data Sources

- **Characteristics of the oral health workforce**
 - State licensing and renewal
 - State surveys of dentists and dental hygienists
 - Literature, web resources, personal communications
- **Major factors affecting future oral health workforce supply**
 - Federal Dept. of Education data
 - Personal communication with education programs
 - American Dental Association masterfile
- **Oral health workforce for underserved populations**
 - Washington State Department of Health
 - Washington State Dental Association
 - Washington Dental Service Foundation
 - And many others



Who Provides Oral Health Services in Washington?

	Education	Credential	Supply size (2009)
<i>Dentists</i>	4+ years post-college	License	5,819
<i>Dental hygienists</i>	2-year college, or bachelor's degree	License	5,014
<i>EFDAs</i> (<i>expanded function dental auxiliaries</i>)	EFDA certification after dental asst.	License	0 licensed, 34 pending
<i>Dental assistants</i>	Range: OTJ to bachelor's degree	Registration	9,327
<i>Denturists</i>	1-2 years (associate degree or technical program)	License	138
<i>Primary care medical providers</i>	Special training needed for Medicaid reimbursement	Medical license	>1,000 physicians, PAs, APNs (<1/3 of total eligible)
<i>Supporting caregivers</i>	Short-term training or CE component	None	2,500



Characteristics of the Oral Health Workforce: Highlights

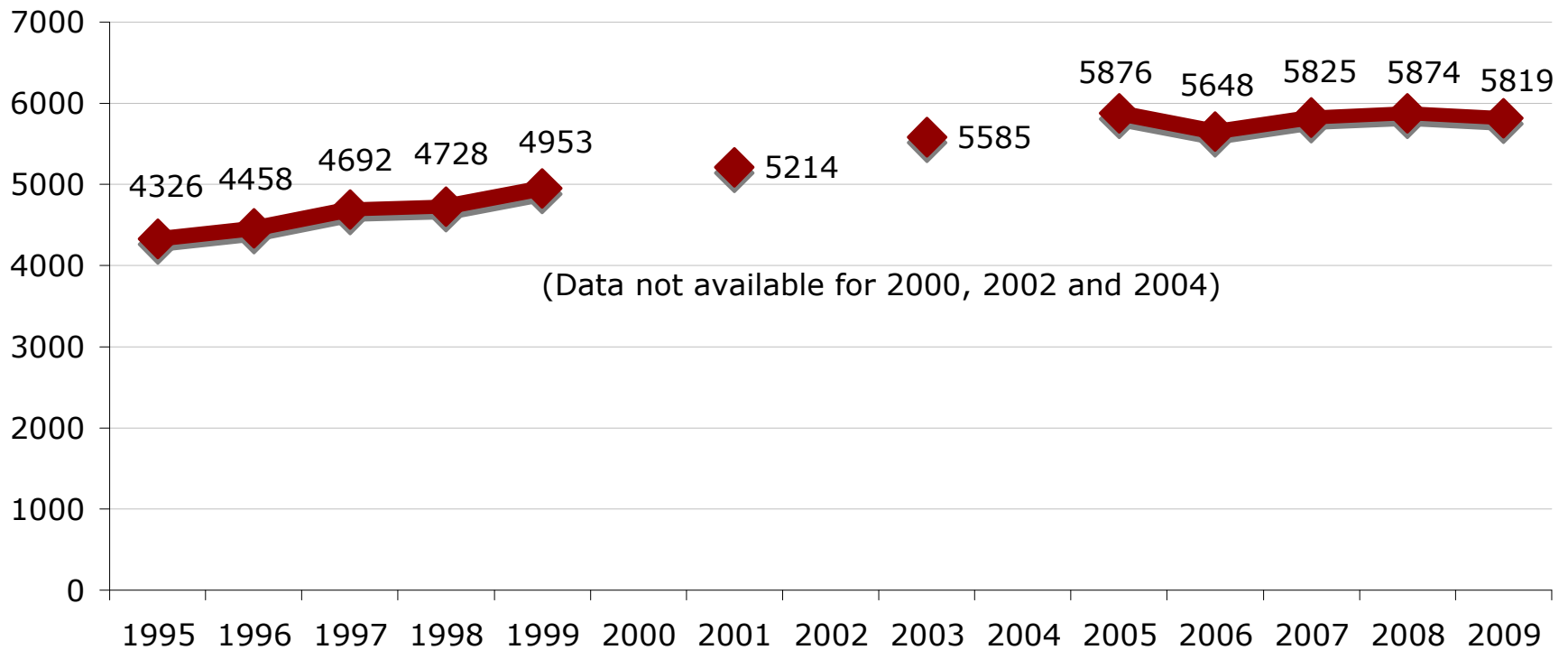
(using available data, including surveys* for dentists and dental hygienists)

- Numbers (licensed, practicing, trends)
- Distribution
- Demographics
- Work setting
- Practice characteristics

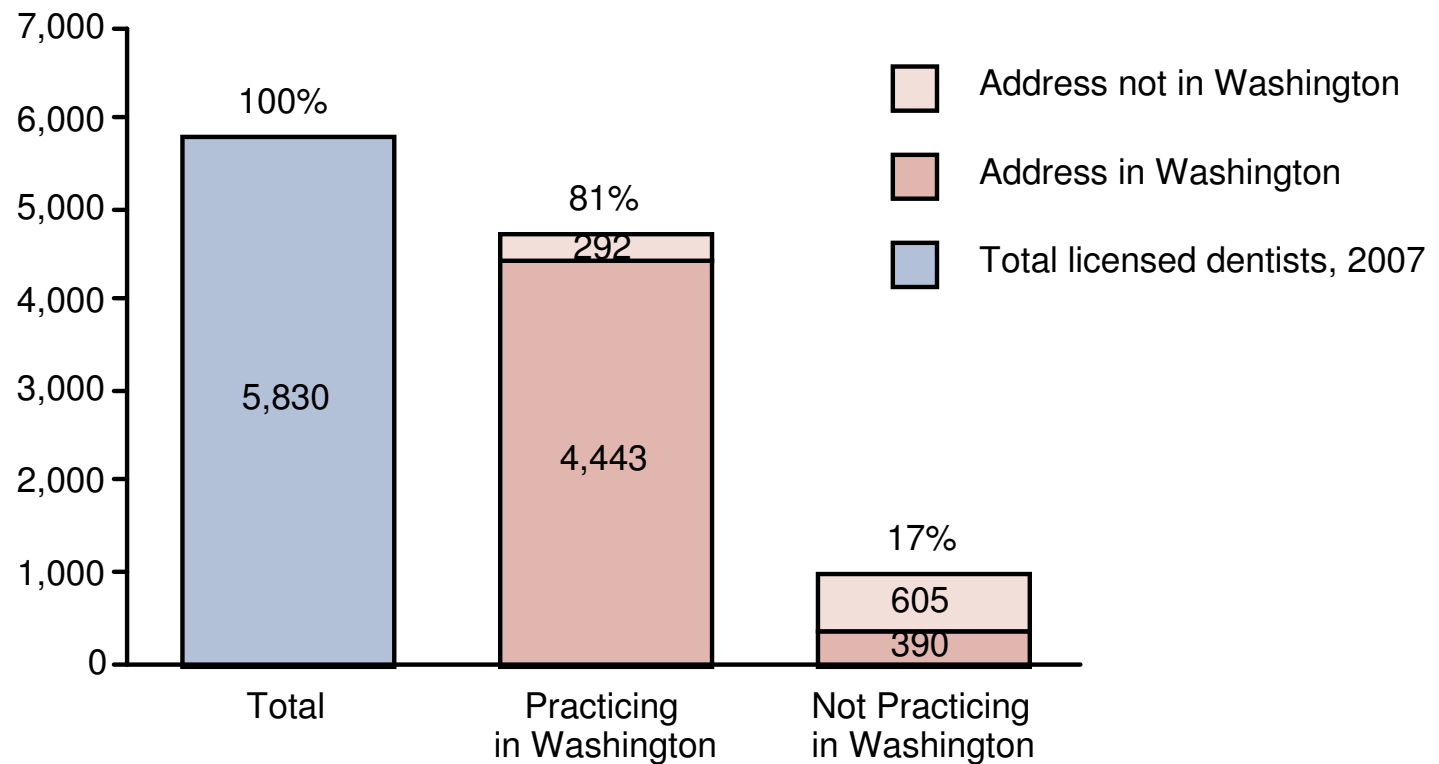
*surveys were one-time, funded by WA Dept. of Health,
of all licensed health care professionals



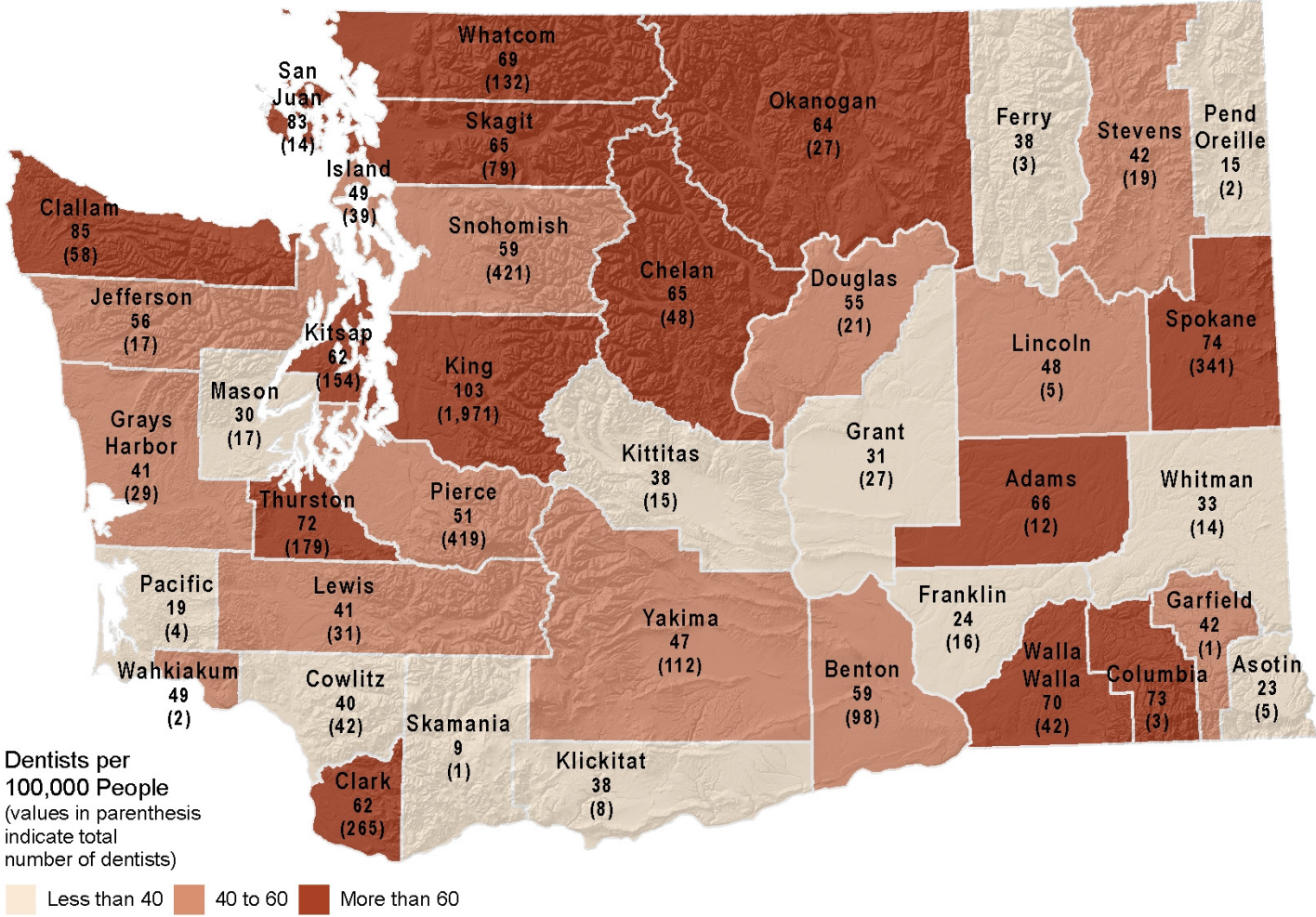
Number of Dentists with Washington State Licenses, 1995-2009



Practice and Residence Characteristics of Washington's Dentists



Distribution: Dentists per 100,000 Population and Number Licensed, 2009



Dentist Demographics

Washington (2007)

- Average age: 49
- 18% female
- 80% White, not-Hispanic
- 3% Hispanic

U.S. (2006)*

- Average age: 49
- 20% female
- (race/ethnicity not available)

*from ADA survey, of professionally active dentists only

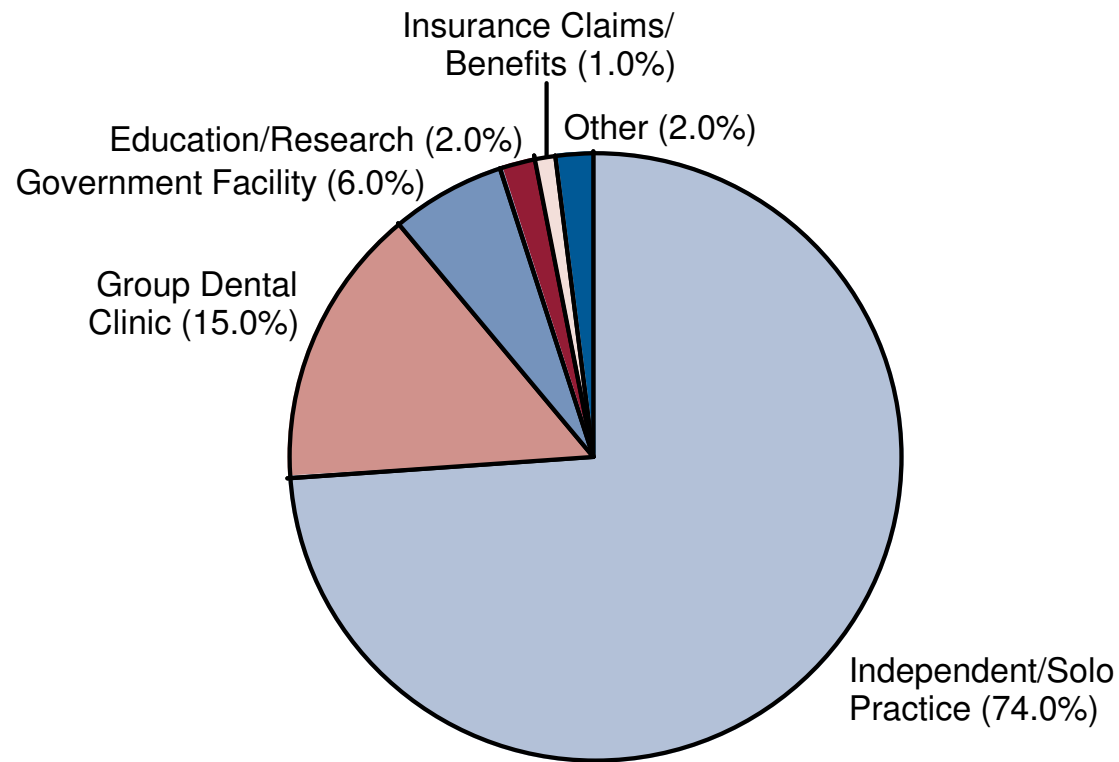


Dentist Specialties, 2007

- 2007 survey estimates for Washington dentists:
 - 77% general practice
 - 4% pediatric practice
 - 7% orthodontics
 - 3% endodontics
 - 3% oral/maxillofacial surgery
 - 2% periodontics
 - 2% public health
 - <2% other



Work Setting of Dentists Practicing in Washington, 2007



Washington Dentists, 2007

- 42% obtained initial dentist education in WA
- 5% obtained initial dentist education outside the U.S.
- 31% had obtained postdoctoral dentist education

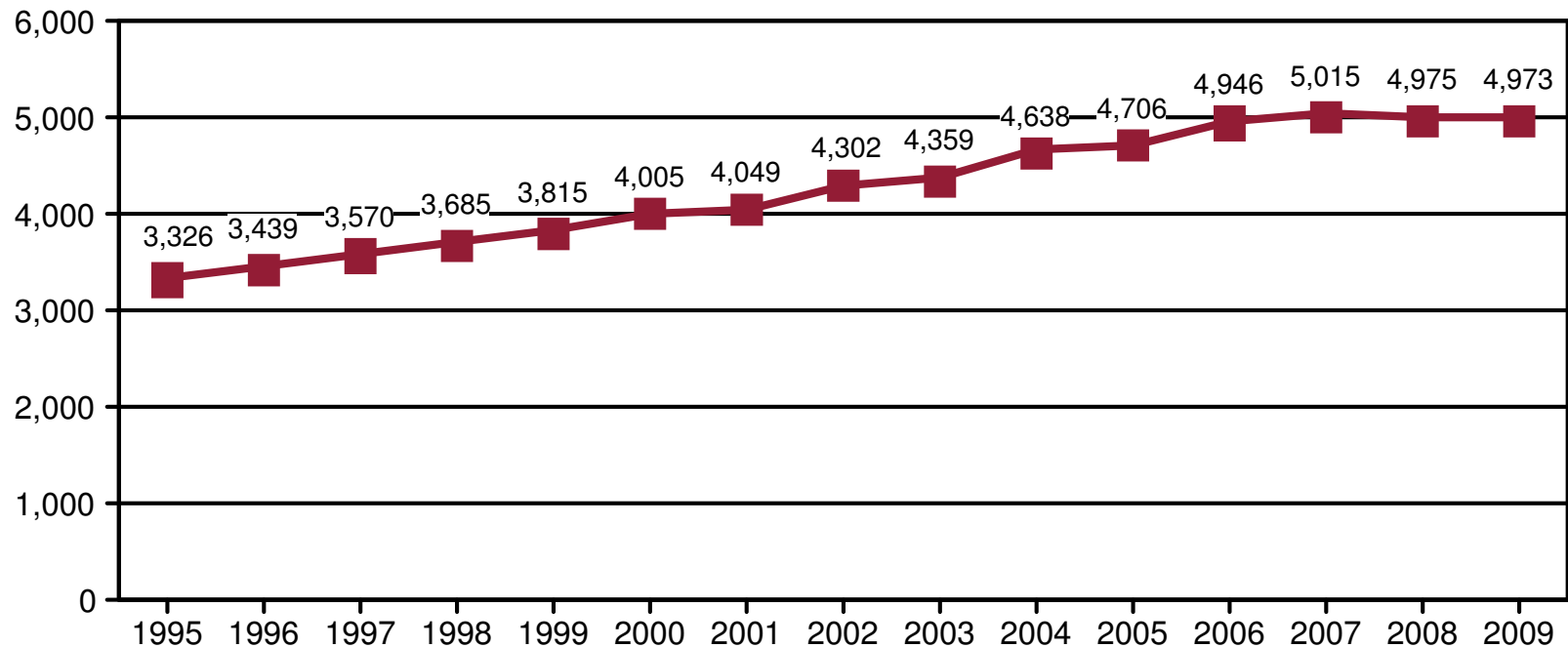


Dentists:Population Ratios

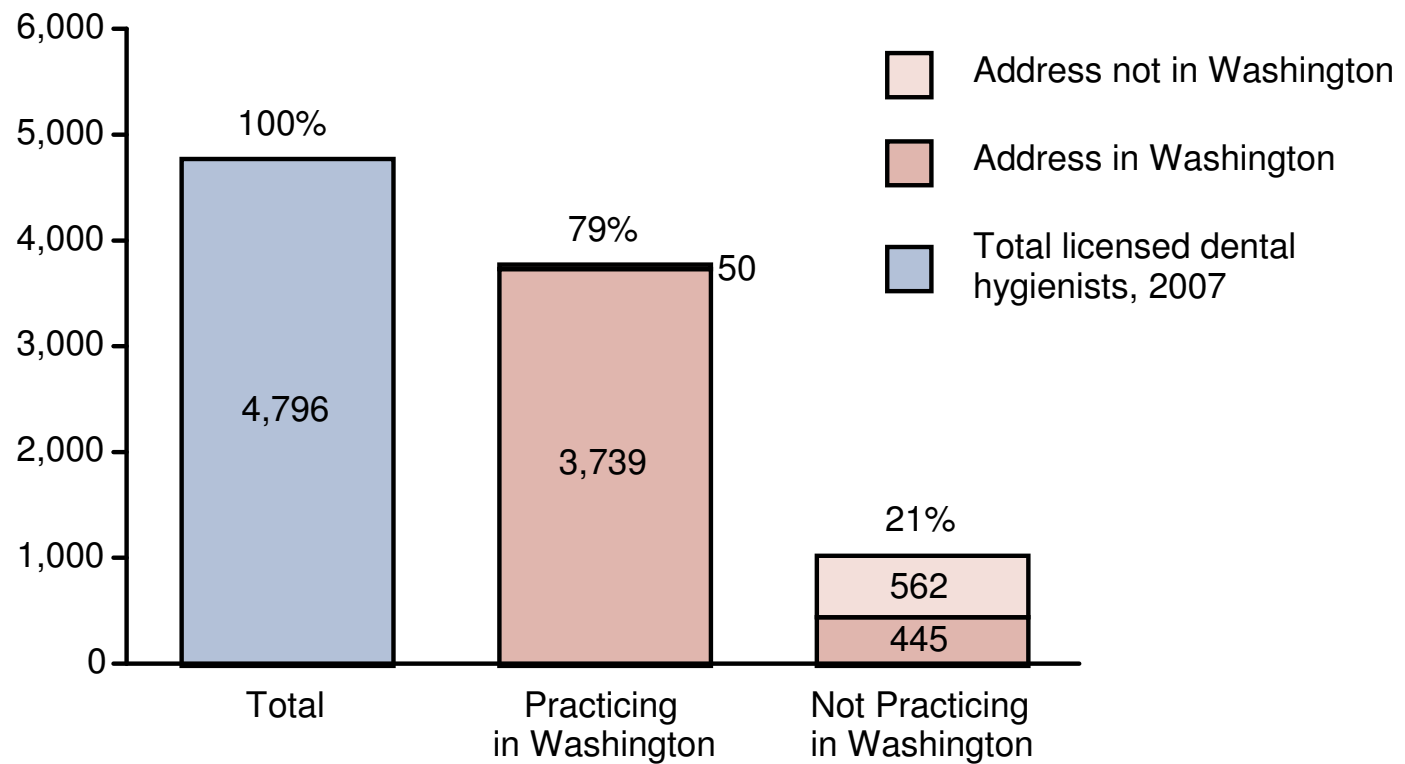
- Washington State estimates:
 - Total licensed dentists:
 - 85 per 100,000 (1999)
 - 94 per 100,000 (2005)
 - 87 per 100,000 (2009)
 - Professionally active dentists with Washington licenses:
 - 71 per 100,000 (2009)
 - Professionally active dentists working in Washington (age 74 or younger):
 - 64 per 100,000 (2009)



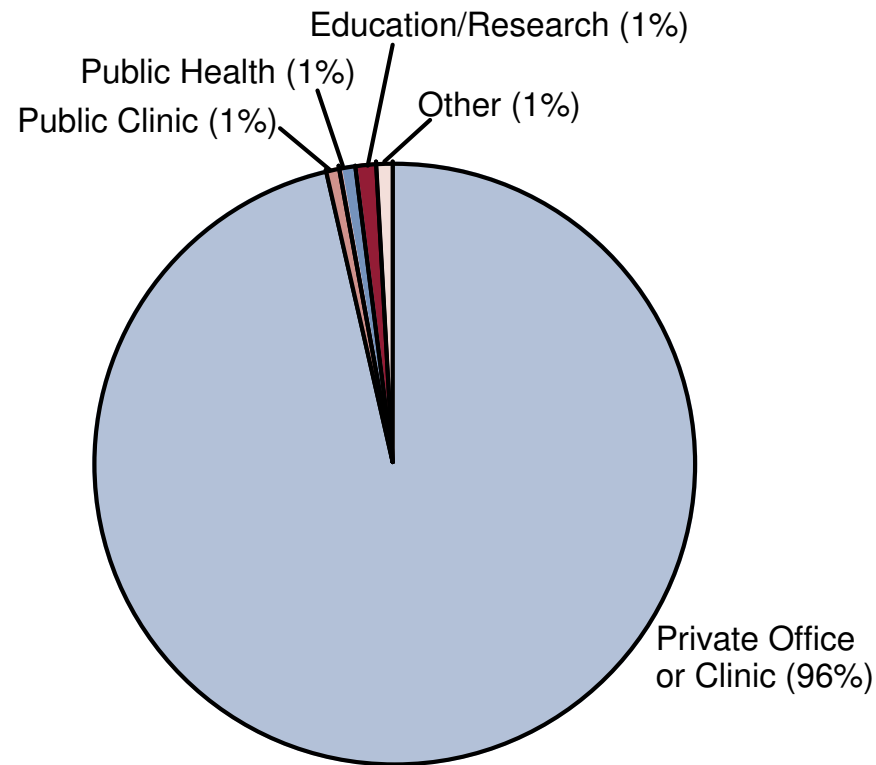
Number of Dental Hygienists with Washington State Licenses, 1995-2009



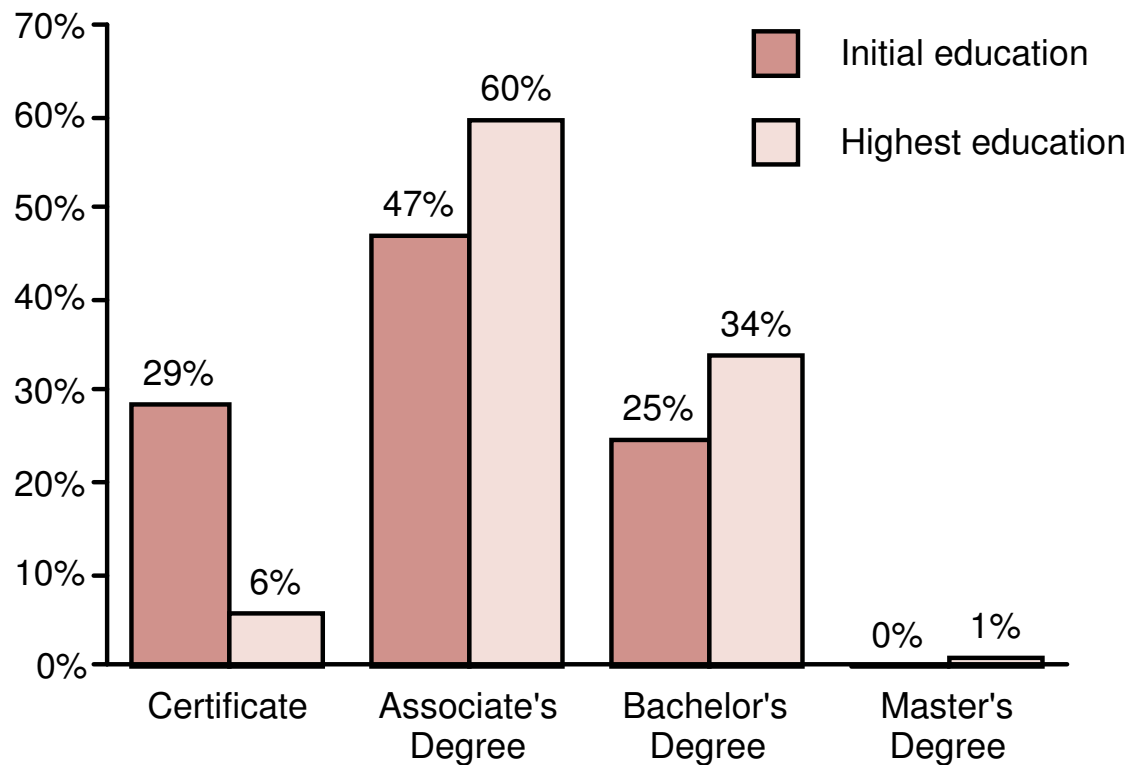
Practice and Residence Characteristics of Dental Hygienists



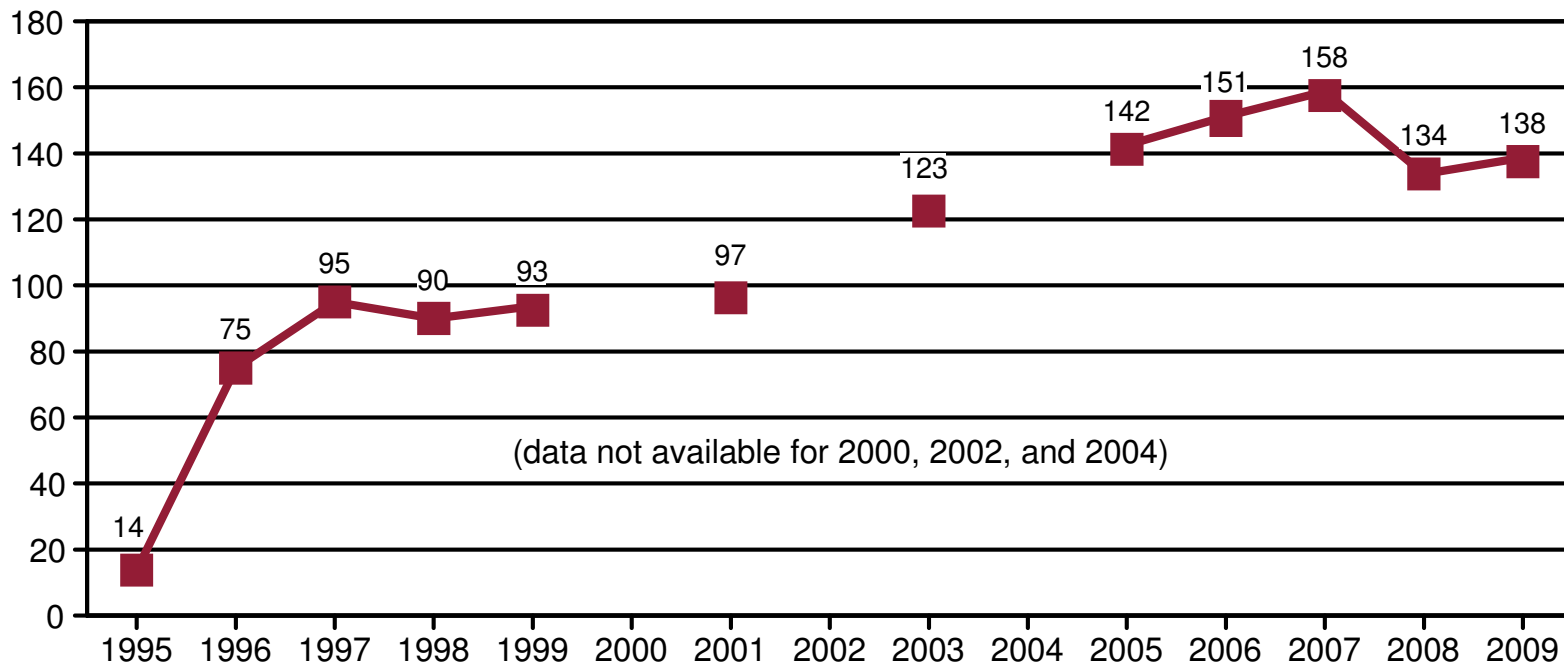
Work Setting of Dental Hygienists Practicing in Washington, 2007



Initial and Highest Dental Hygiene Education, 2007



Number of Denturists with Washington State Licenses, 1995-2009



EFDAs and Dental Assistants

- EFDAs are new, so no data are yet available
- Dental assistants: A registered profession, for which few data are available

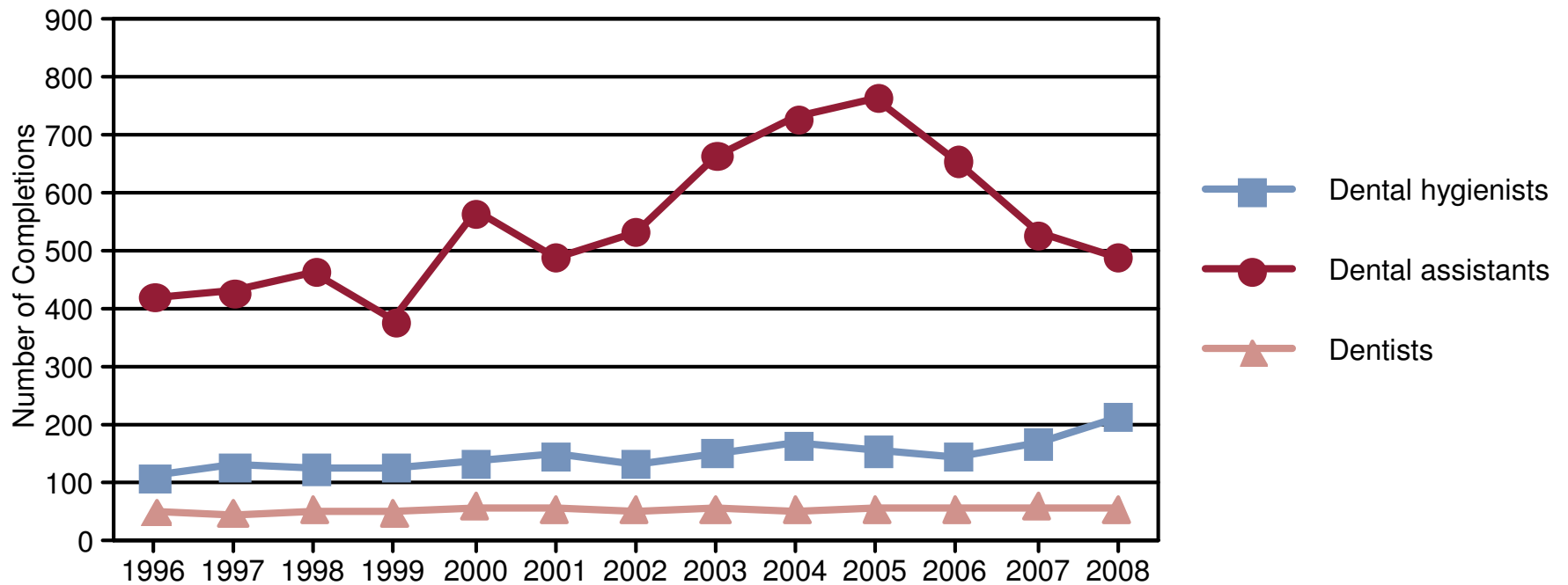


Major Factors Affecting Future Oral Health Workforce Supply

- Education trends
- In-migration and out-migration
- Workforce participation (FTE, clinical practice status, etc)
- Retirement
- Death



Dental Education Program Completions in Washington



New Graduates/Completers of Oral Health Workforce Education (2008):

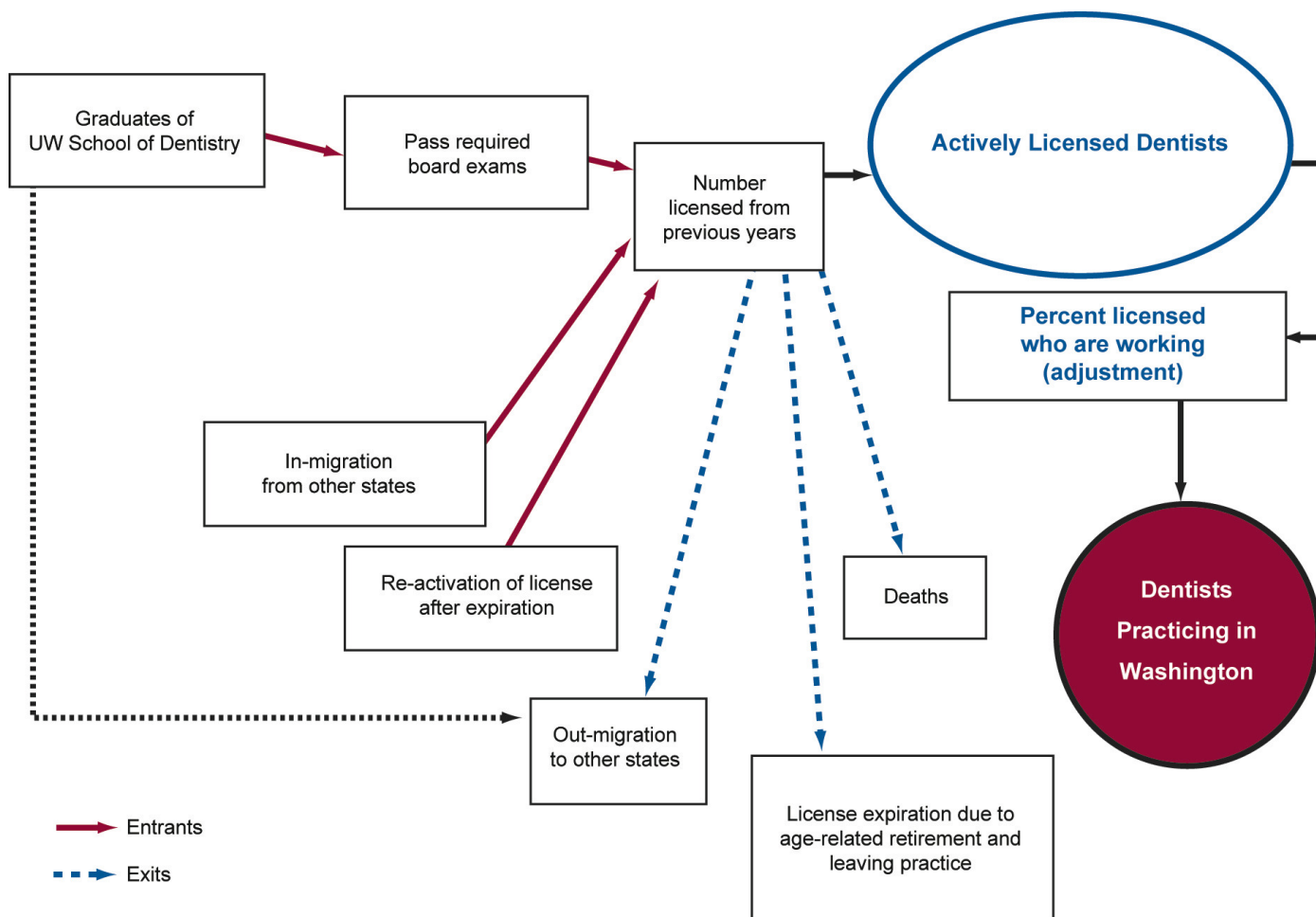
	Female	White, Not-Hispanic
Dentists	33%	88%
Dental hygienists	96%	82%
Dental assistants	98%	69%



Projections of the Impact of Graduations from the UW School of Dentistry on Washington State Dentist Supply



Key Factors that Cause Change in the Size of Dentist Workforce Supply



Factors Explored in These Projections

- Number of new graduates
- Retention rates of new graduates
- Retirement
- In-migration (to the extent needed to maintain 2009 statewide provider:population ratio)
- Workforce participation (model estimates by age, as drawn from 2007 dentist survey)
(factored into the projection model by age, to the extent available data allow)



Projection Scenarios

- 1) Statewide
- 2) Eastern Washington

Different scenarios reflect:

- Increases/decreases in the number of graduates
- Increases/decrease in-state retention rates, differentially for Regional Initiatives in Dental Education (RIDE) and non-RIDE graduates



Projection Scenarios

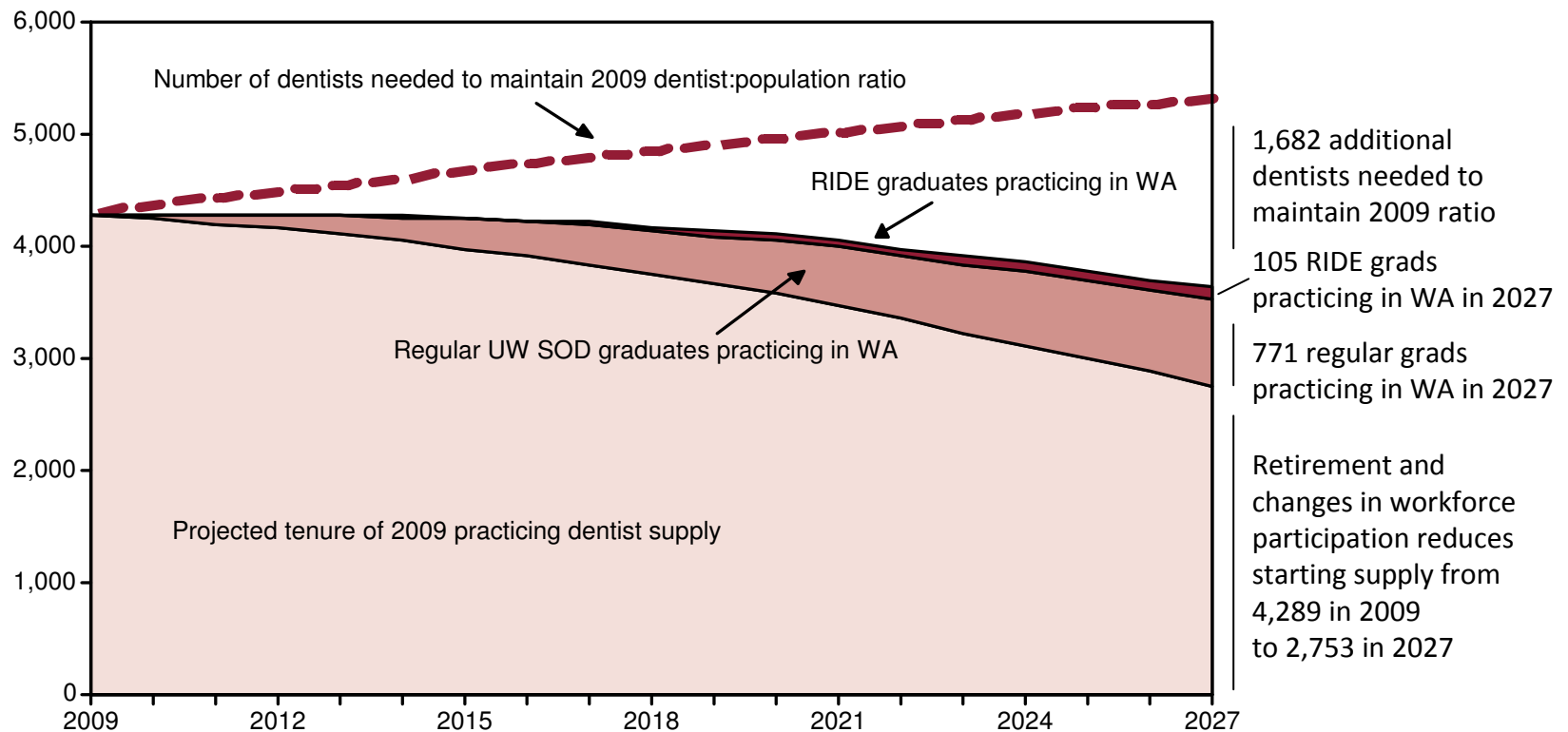
Compare supply to a benchmark of practicing dentists statewide in 2009 per 100,000 population

- The benchmark is for comparison only. It does not imply this is “the right” number of dentists needed in 2009 or in 2027
- The benchmark does not take into consideration any dentists shortages, changes needed if insurance rates change, greater reliance on non-dentist providers, or other policy or practice changes that would influence need for dentists



Scenario Statewide 1: 55:63, 80:90%

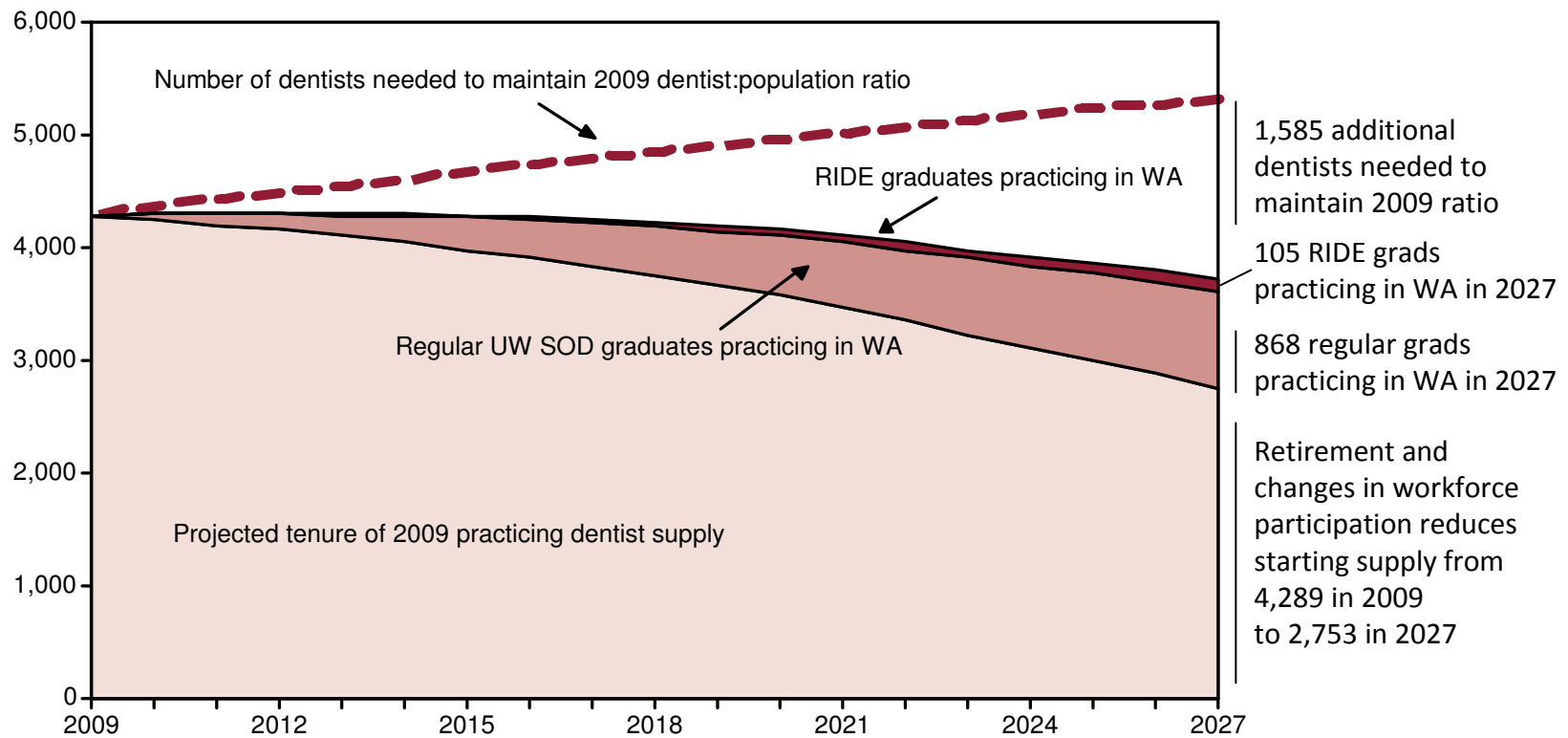
(Graduates: 55 to 2011, 63 from 2012-27
Retention in WA: 80% non-RIDE, 90% RIDE)



Scenario Statewide 3: 55:63, 90:90%

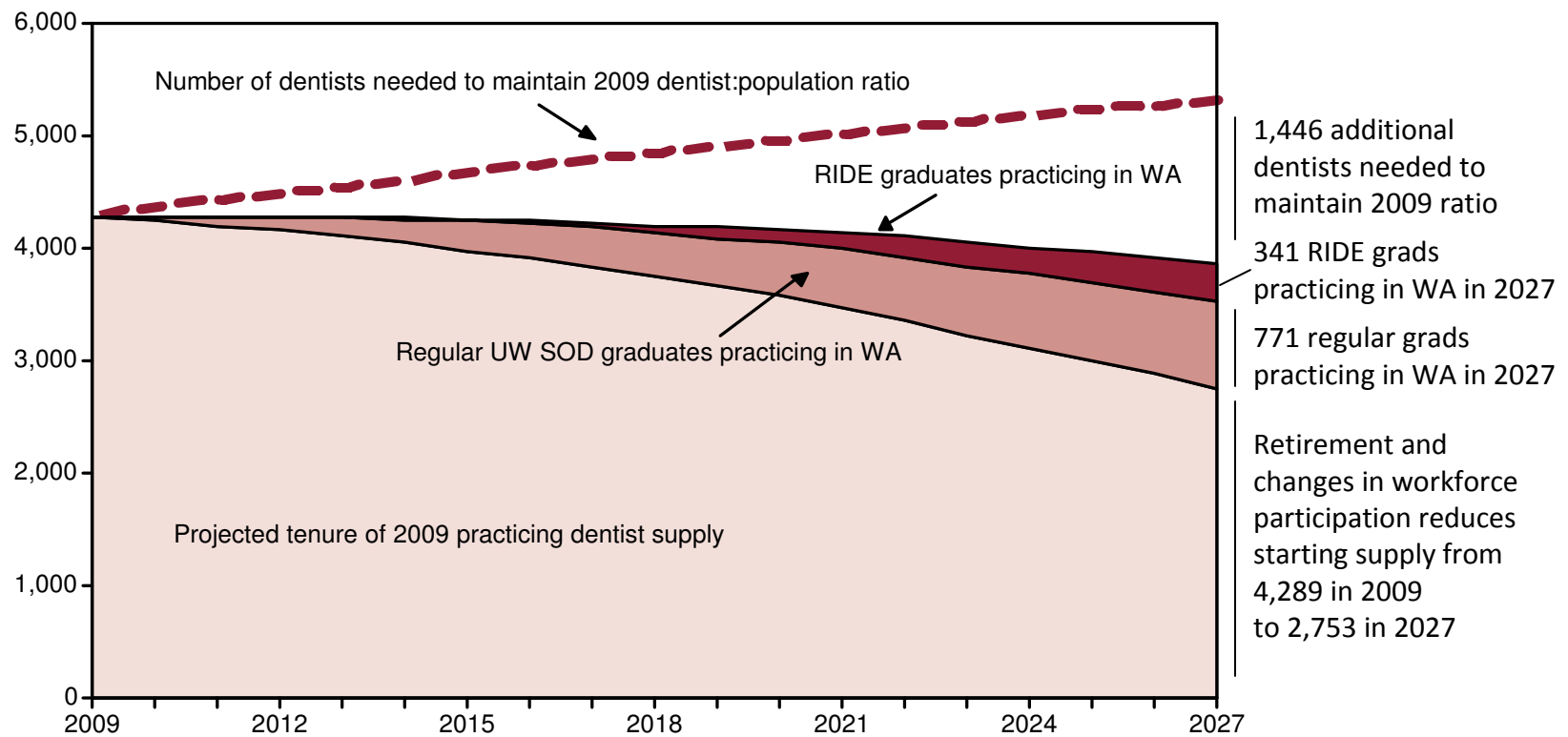
(Graduates: 55 to 2011, 63 from 2012-27)

Retention in WA: 90% non-RIDE, 90% RIDE)



Scenario Statewide 5: 55:63:90, 80:90%

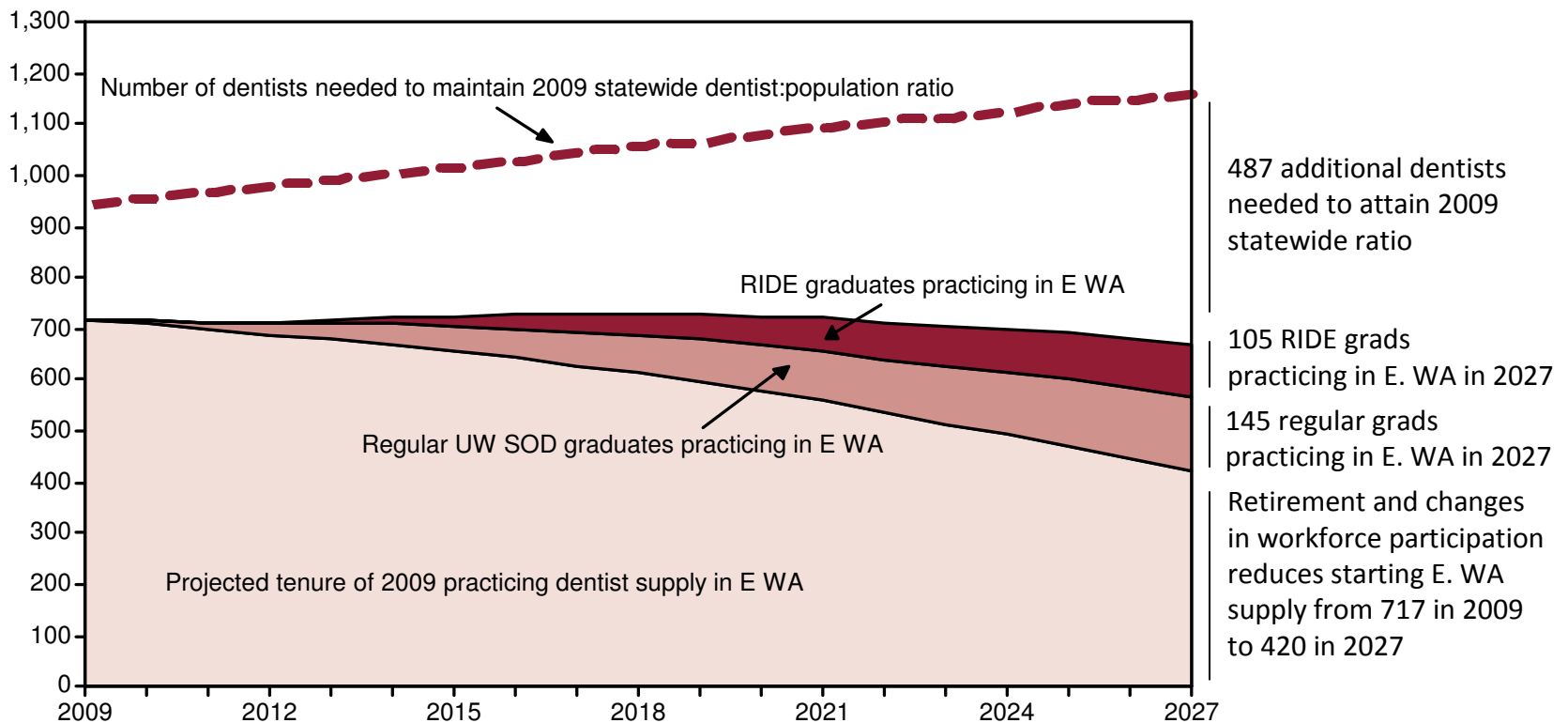
(Graduates: 55 to 2011, 63 from 2012-16, 90 from 2017-2027
Retention in WA: 80% non-RIDE, 90% RIDE)



Scenario Eastern WA 1: 55:63, 15:90%

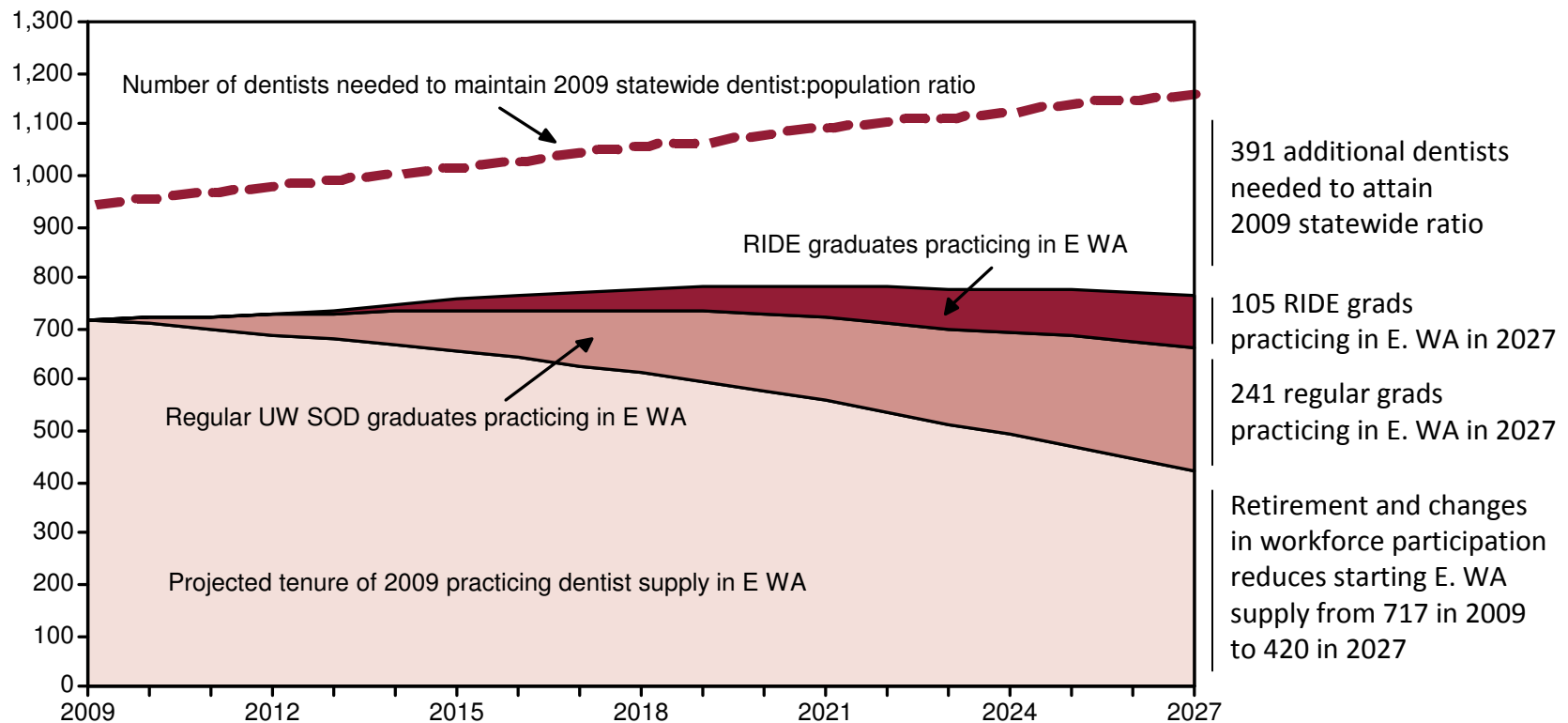
(Graduates: 55 to 2011, 63 from 2012-2027)

Retention in eastern WA: 15% non-RIDE, 90% RIDE)



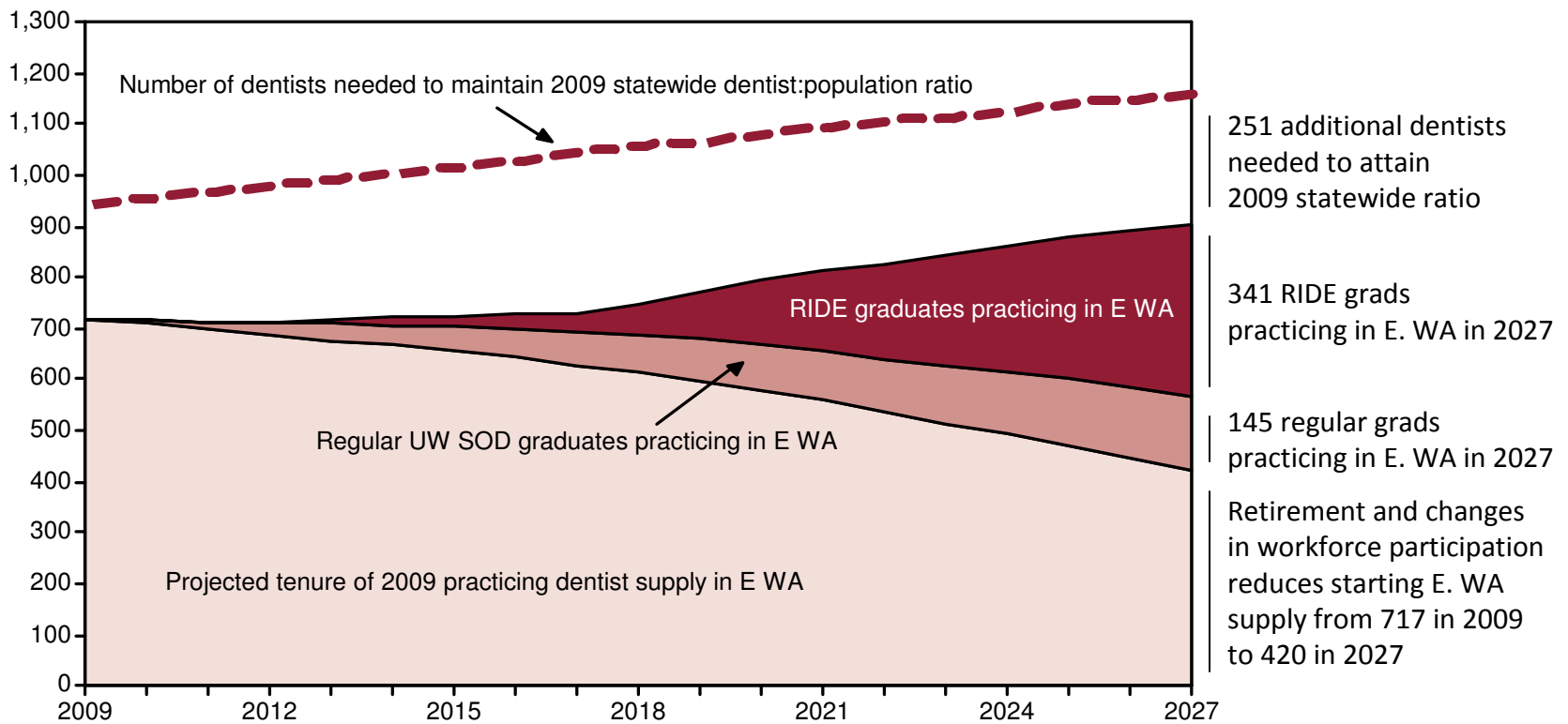
Scenario Eastern WA 2: 55:63, 25:90%

(Graduates: 55 to 2011, 63 from 2012-2016,
Retention in eastern WA: 25% non-RIDE, 90% RIDE)



Scenario Eastern WA 4: 55:63:90, 15:90%

(Graduates: 55 to 2011, 63 from 2012-2016, 90 from 2017-2027)
Retention in eastern WA: 15% non-RIDE, 90% RIDE)



Limitations of Projections

- Because of data and resource limitations, projections use basic adjustments to 2009 supply:
 - The model presumes no one >74 years of age is practicing (in 2007, 1.6% of practicing dentists were older than 74 years of age).
 - Deaths and out-migration are not explicitly accounted for in the model. The result therefore over-estimates the tenure of 2009 supply.
- 2009-2027 comparisons:
 - Presumes the same percent of the 2009 supply that remains in the workforce in 2027 will be UW grads as were UW grads in 2009.
 - Each year of the model uses the same workforce participation rate by age (from 2007 survey results).



Overall Conclusions

- Oral health services are delivered by a variety of providers in Washington State,
- Dentist supply varies greatly across the state,
- The oral health workforce supply (especially dentists) may not keep pace with demand due to:
 - the growth and aging of Washington’s population,
 - the impact of high rates of retirement among the workforce,
 - limits of education capacity.
- A process and document that summarizes and analyses available data on a state’s oral health workforce is useful for planning and policy discussions



Policy Implications

- To meet the future population's oral health needs, the current and future workforce should emphasize:
 - **prevention,**
 - **efficiency (teams that include non-dentist providers),**
 - **access for rural and underserved populations.**



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