



Illinois Dental Workforce Census Report 2004 – 2005



Introduction

In 2001, the Illinois Department of Public Health, Division of Oral Health created an oral health plan to guide statewide efforts for addressing oral health priorities in Illinois. This document was developed based on statewide community input with solid and realistic recommendations/strategies that communities could utilize to improve the oral health of their citizens. As a policy goal of the plan, addressing dental workforce issues was cited as a major priority. The Dental Workforce Census Report is one of the initial steps in building an effective infrastructure that meets the oral health needs of all Illinoisans.

Although this project is only a snapshot of one point in time and does not fully capture every dentist and dental hygienist in the state, it does begin to paint the picture of the dental workforce in Illinois. More importantly, it demonstrates the power of collaboration and the potential for utilizing this data collection method as a viable way to gather workforce information through a mechanism already in place. If workforce data were collected at each licensure renewal period, and every dentist and dental hygienist responded to the survey, it would be possible to look at trends over time and develop policies based on solid information. Collecting Illinois dental workforce data will allow the Illinois Department of Public Health, decision makers, professional organizations and academic institutions to look at future trends over time, develop appropriate program strategies, and most importantly, support policies that will ensure that the oral health needs of all Illinoisans are being met.

Dental Workforce Significance

According to the 2000 U.S. Census Bureau data, the U.S. population is projected to exceed 400 million by the year 2050. This is a 42 percent increase from the year 2000. In Illinois, the total population is projected to grow 5 percent between 2000 and 2020, and

the population of those 65 and older is projected to grow 31 percent. The population growth, coupled with Americans living longer and having improved oral health, means that the need for oral health services is increasing. In addition, two Illinois dental schools have recently closed, the current dental workforce is aging, the diversity in our population is changing, and persons with disabilities is growing. These changes will require action to ensure that a competent, diverse and adequate supply of dental professionals are available to address the needs of the public.

Methods

The Illinois Department of Public Health, Division of Oral Health strives for collaboration and partnership whenever possible. In September 2004, the Illinois Department of Public Health and Illinois Department of Financial & Professional Regulation joined together to survey licensed Illinois dentists and dental hygienists to learn more about the characteristics of the state's oral health workforce. Assistance was provided by the Illinois State Dental Society, Illinois Midwest Center for Health Workforce Studies, and the dental school deans at Southern Illinois University and University of Illinois at Chicago. A census questionnaire was developed and every Illinois licensed dentist and dental hygienist received the survey with their license renewal form. The survey was designed to gather characteristics of clinically active dentists and dental hygienists by county. Characteristics considered for dentists included specialty, full- or part-time status, number of practice locations, whether or not they were private practice, if the dentist graduated from an Illinois dental school, and if they planned to stop practicing clinical dentistry within the next 10 years. Characteristics considered for dental hygienists included number of practice locations, full- or part-time status, employed in private practice(s), if the hygienist graduated from an Illinois dental hygiene program and if they planned to stop practicing clinical dental hygiene within the next seven years. Gender, age, race and ethnicity also were gathered for both profes-

sions. Although the survey was not mandatory, the response rate was exceptional. Data analysis was completed by the Illinois Department of Public Health's oral health epidemiologist.

Limitations

The survey was sent to all dentists and dental hygienists whose licenses were renewed as of September 2004 and response was voluntary. Therefore, the data does not represent all licensed Illinois dentists and dental hygienists. The survey asked questions only from clinically practicing dentists and dental hygienists, excluding those in public health settings. Data in the report are subject to limitations associated with the use of mailed surveys and self-reporting.

Conclusions

Although the data were not able to provide us exactly what we looking for, i.e., the dental full-time equivalency by county, it provided a baseline of the dental workforce in Illinois. As stated previously, it demonstrated the power of collaboration and the potential inherent in utilizing a method such as this to gather information. If workforce data were collected at each licensure renewal period and every dentist and dental hygienist responded to the survey, we would then be able to look at trends over time and work together to develop policies based on solid information.

General Findings

Characteristics of Illinois Dentists

- ❖ 8,575 dentists renewed their license and, of those, 5,318 returned the survey, for a response rate of 62 percent

- ❖ Of the 5,318 who returned the survey, 4,571 (86%) indicated that they practiced clinical dentistry

- Male (81%)
- White (85%)
- Average age is 50 years old
- Graduates of in-state dental school (77%)
- Work more than 30 hours per week (72%)
- One practice location (75%)
- General practice (83%)
- Plans to stop practicing within next 10 years (33%)

Characteristics of Illinois Dental Hygienists

- ❖ 5,329 dental hygienists renewed their license and, of those, 3,778 returned the survey, for a response rate of 71 percent

- ❖ Of the 3,778 who returned the survey, 3,151 (83%) indicated that they practiced clinical dental hygiene

- Female (99%)
- White (95%)
- Average age is 41 years old
- Graduates of in-state dental hygiene program (83%)
- Work more than 30 hours per week (45%)
- One practice location (75%)

Observations

- ❖ The vast majority of clinical dentists are general practitioners and not in specialty fields
- ❖ Only 2 percent of those practicing clinical dentistry are pediatric dentists

- ❖ Thirty-three percent of dentists are graduates of dental schools that are no longer open
- ❖ The racial and ethnic characteristics of Illinois dentists do not align with racial and ethnic characteristics of the people in Illinois
- ❖ One-third of dentists currently practicing clinical dentistry plan on retiring within the next 10 years
- ❖ The average age of dental hygienists in Illinois is nine years younger than that of dentists (41 years old vs. 50 years old)
- ❖ The percent of women practicing clinical dentistry continues to increase significantly in Illinois

- Increase the number and types of community-based experiences available to students of dentistry and dental hygiene
- Integrate information and training experiences into the dental and dental hygiene education curricula that will allow dental professionals to treat a diverse public
- Expand continuing education opportunities for dentists and dental hygienists in the area of dental public health
- Develop an Illinois loan repayment program for dentists and dental hygienists who agree to practice in underserved areas and agree to treat underserved populations

Where do we go from here?

The ability of the oral health workforce to respond to the dental needs of the Illinoisans is contingent on a number of factors. These include, but are not limited to: the number of graduates from Illinois dental schools; the racial and ethnic characteristics of the provider community; the aging workforce; and the proportion of pediatric dentists and other specialists in relation to general dentists. These factors may affect the ability of the workforce to respond to the needs of vulnerable populations. The Illinois Oral Health Plan outlines specific goals, recommendations and strategies for addressing workforce issues. Highlights from this document are listed below:

- Establish dental workforce data collection as part of the Illinois licensure process. Once established, assess the distribution and potential need for specialists, especially pediatric dentists
- Increase the representation of students from under-represented minorities in dental and dental hygiene programs

Key Messages to Consider from this Census

- ❖ Establishing a policy for routine workforce surveillance through license renewal is key to collecting valuable workforce data. Gathering data in this fashion demonstrates that coordinated efforts and pooling of resources is an important and effective method.
- ❖ We must work toward creating a future dental workforce that is a reflection of the faces of the people of Illinois.
- ❖ We must take a careful look at the ability of our schools to meet the workforce needs of Illinois.

Figure 1: Dentists by Type of Practice

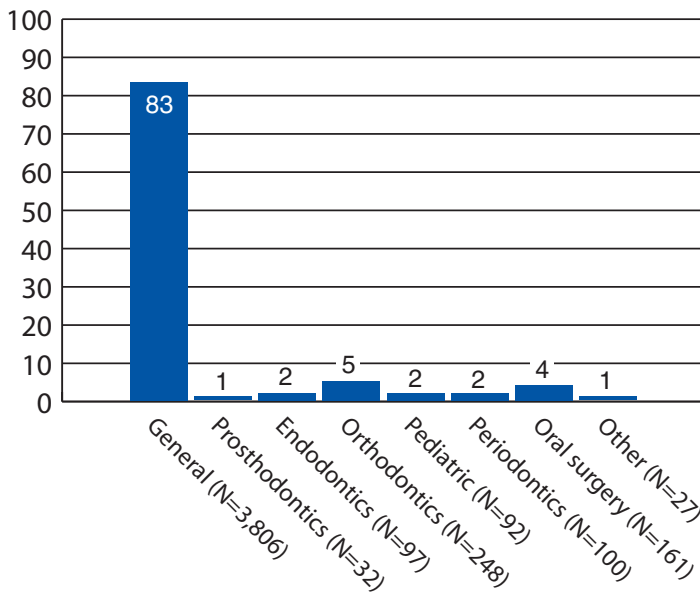


Figure 2: Dentists by Hours Worked per Week

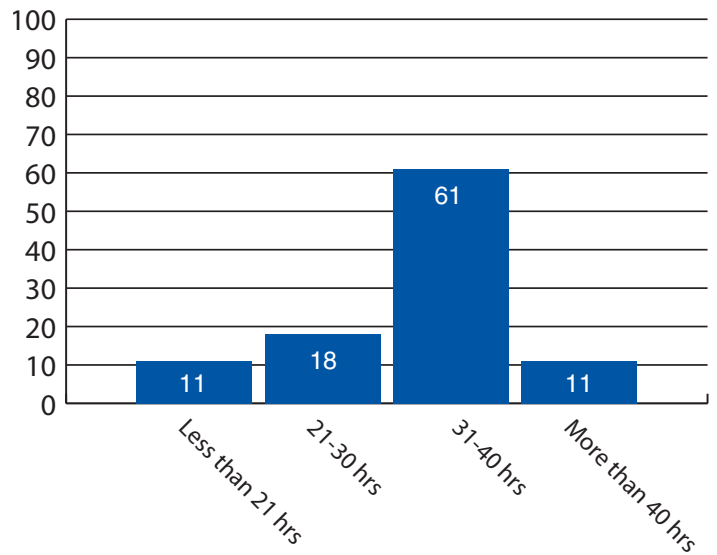


Figure 3: Dentists by Age and Gender

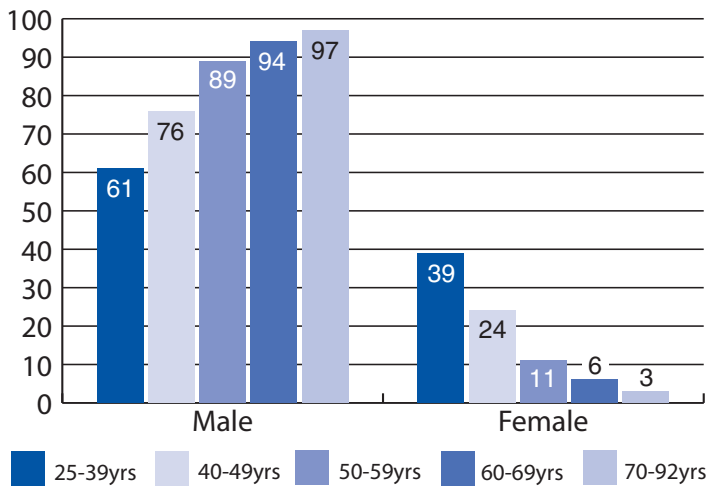


Figure 4: Dentists & Population by Race/Ethnicity

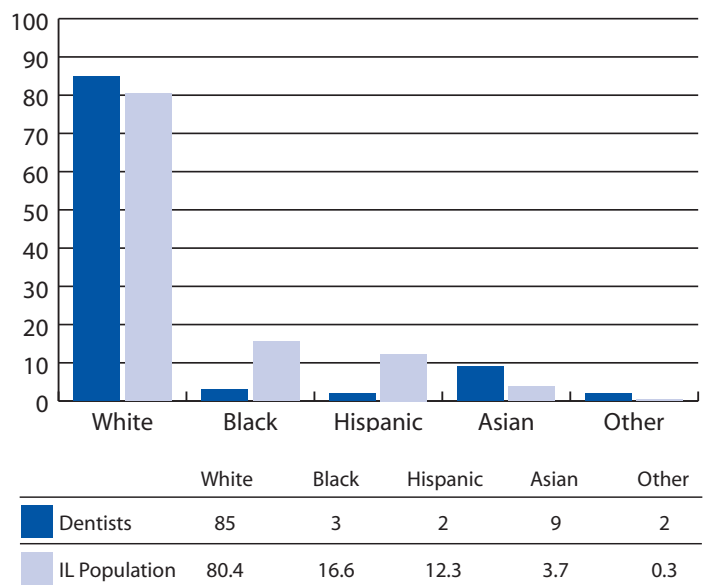


Figure 5: Dentists by Dental School Attended

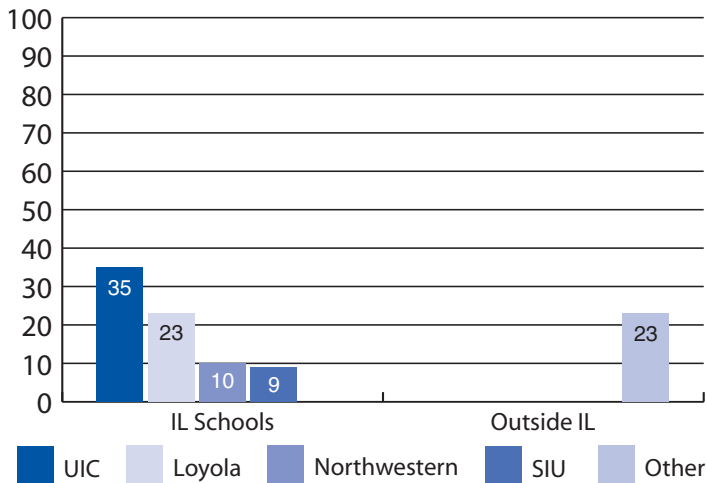


Figure 6: Regional Distribution of Dentists Graduating from Northwestern or Loyola

Region*	Total	Northwestern	%	Loyola	%
Champaign	214	21	10	40	19
Chicago	2129	241	11	463	22
Edwardsville	336	29	9	81	24
Marion	125	17	14	38	30
Peoria	300	29	10	74	25
Rockford	210	18	9	58	28
West Chicago	1232	116	9	292	24

Figure 7: Age Distribution vs. Hours Worked Per Week Among Male Dentists

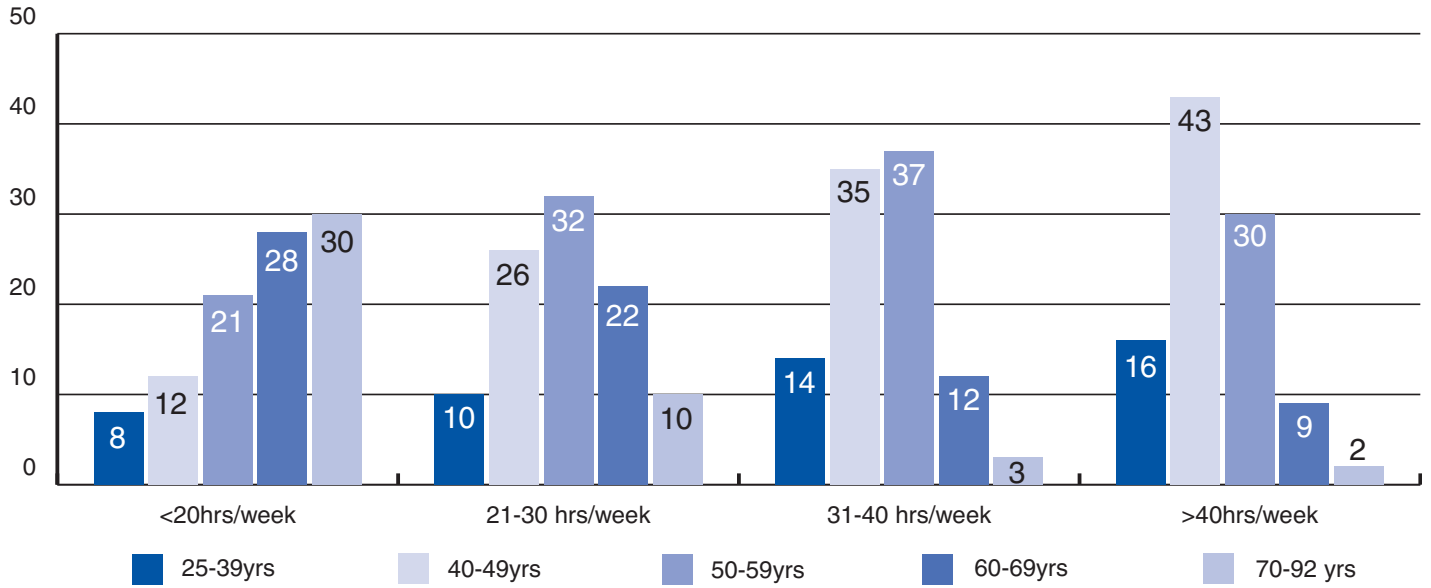


Figure 8: Age Distribution vs. Hours Worked Per Week Among Female Dentists

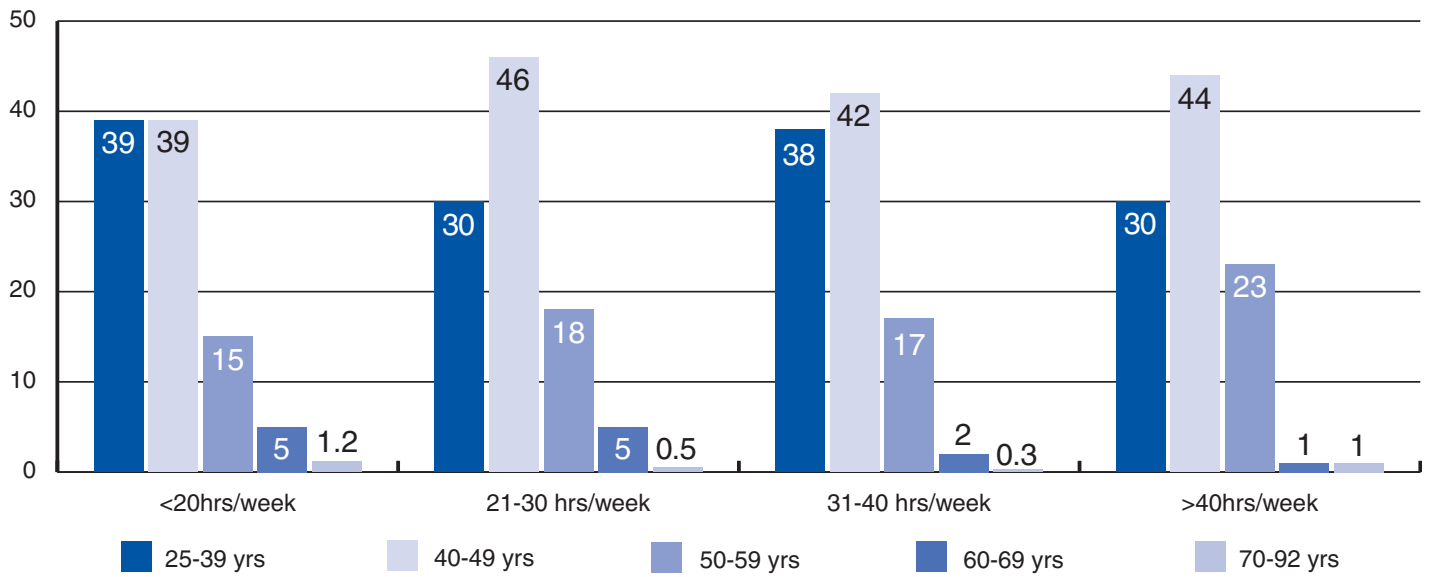


Figure 9: Dental Hygienists by Number of Practice Sites

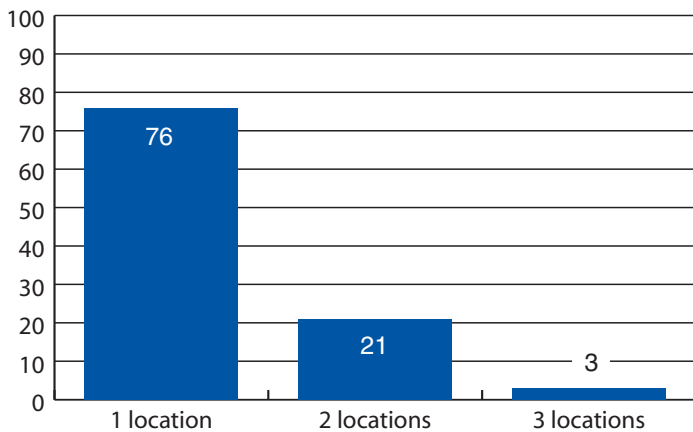


Figure 10: Dental Hygienists by Hours Worked Per Week

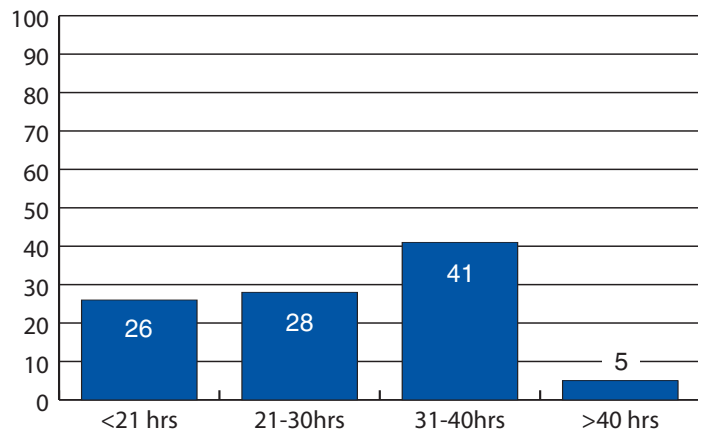


Figure 11: Dental Hygienists by Race/Ethnicity

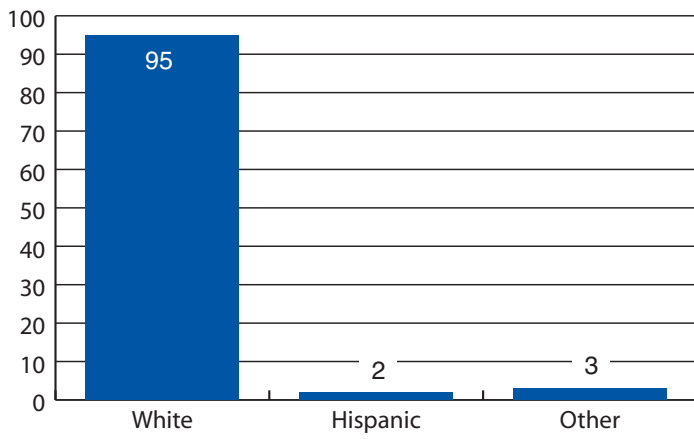
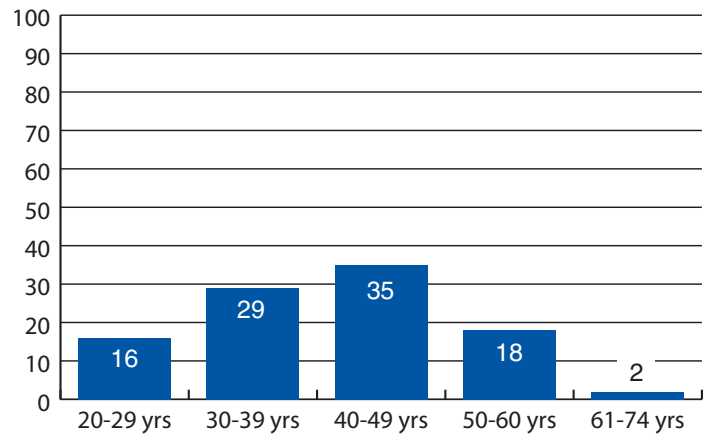


Figure 12: Dental Hygienists by Age



Illinois Dentist Data Tables

Table 1: Illinois Dentists 2004
Summary of the Active Clinically Practicing Dentists in Illinois 2004

	Number	Percent
Urbanicity		
Cook	2130	46.9
Collar	1179	26.0
Rural	494	10.9
Urban	734	16.2
Gender		
Male	3689	80.9
Female	869	19.1
Number of Practice Sites		
One	3423	75.0
Two	1141	25.0
Age Groups		
25-39 years	775	17.2
40-49 years	1,532	34.1
50-59 years	1,391	30.9
60-69 years	558	12.4
70-92 years	239	5.3
Type of practice		
General	3806	83.4
Prosthodontics	32	0.7
Endodontics	97	2.1
Orthodontics	248	5.4
Pediatric	92	2.0
Periodontics	100	2.2
Oral Surgery	161	3.5
Other	27	0.6
Hours worked per week		
Less than 21 hours	473	10.7
21-30 hours	782	17.7
31-40 hours	2694	60.9
More than 40 hours	476	10.8
Race & Ethnicity		
White	3815	84.5
Black/African American	125	2.8
Hispanic	90	2.0
Asian	395	8.8
Other	88	1.9
Plans to stop practice		
1-2 years	162	3.7
3-5 years	404	9.2
6-10 years	893	20.3
No Plans	2950	66.9

Table 2: Illinois Dentists 2004
Age and Hours Worked Per Week By Gender

	Gender	
	Males	Females
	%	%
Number of Practice Sites		
One	81.7	18.3
Two	78.8	21.2
Age Groups		
25-39 yrs	60.6	39.4
40-49 yrs	76.2	23.8
50-59 yrs	89.0	11.0
60-69yrs	94.4	5.6
70-92 yrs	97.5	2.5
Type of Practice		
General	80.8	19.2
Prosthodontics	87.5	12.5
Endodontics	85.6	14.4
Orthodontics	79.4	20.6
Pediatrics	81.5	18.5
Periodontics	81.8	18.2
Oral Surgery	81.4	18.6
Other	88.9	11.1
Hours worked per week		
Less than 21 hours	64.2	35.8
21-30 hours	74.8	25.2
31-40 hours	85.2	14.8
More than 40 hours	82.5	17.5
Plans to Stop practice		
1-2 years	90.7	9.3
3-5 years	89.8	10.2
6 -10 years	86.3	13.7
No Plans	77.2	22.8

Table 3: Illinois Dentists 2004
Summary by Urbanicity

	Cook	Collar	Rural	Urban	Illinois
	%	%	%	%	%
Gender					
Male	81.6	81.3	80.0	79.0	80.9
Female	18.4	18.7	20.0	21.0	19.1
Number of Practice Sites					
One	71.3	76.3	82.8	78.6	75.0
Two	28.7	23.7	17.2	21.4	25.0
Age Groups					
25-39 years	17.2	18.6	16.4	15.6	17.2
40-49 years	34.4	33.3	35.5	33.8	34.1
50-59 years	29.9	30.8	31.6	33.7	30.9
60-69 years	13.4	12.3	10.9	10.6	12.4
70-92 years	5.1	4.9	5.7	6.2	5.3
Type of Practice					
General	84.3	81.8	90.1	79.8	83.4
Prosthodontics	0.8	0.5	0.4	0.7	0.7
Endodontics	2.4	2.4	0.6	1.9	2.1
Orthodontics	4.4	6.7	4.3	6.3	5.4
Pediatrics	1.9	2.7	0.4	2.3	2.0
Periodontics	2.2	2.3	0.6	3.1	2.2
Oral Surgery	3.1	3.5	3.7	4.8	3.5
Other	0.8	0.1	0	1.1	0.6
Hours worked per week					
Less than 21 hours	10.6	11.7	8.8	10.4	10.7
21-30 hours	18.5	18.8	15.0	15.4	17.7
31-40 hours	58.9	59.1	66.9	66.0	60.9
More than 40 hours	12.0	10.3	9.4	8.3	10.8
Race & Ethnicity					
White	83.8	84.2	85.8	86.3	84.5
Black/African American	2.4	3.5	2.3	3.2	2.8
Hispanic	2.2	2.1	1.9	1.5	2.0
Asian	9.4	9.0	7.8	6.9	8.8
Other	2.2	1.2	2.3	2.1	1.9
Plans to stop practice					
1-2 years	4.1	3.6	3.6	2.5	3.7
3-5 years	9.8	9.2	7.9	8	9.2
6-10 years	20.5	19.1	20.0	21.6	20.3
No Plans	65.7	68.1	68.6	67.8	66.9

**Table 4: Percentage of Dentists by Age, Gender
and Hours Worked Per Week**

Age Groups	Hours worked per week									
	Less than 21 hrs		21-30 hrs		31-40 hrs		More than 40 hrs		Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
25-39 years	7.9	39.3	9.6	30.2	13.8	38.1	16.6	30.5	12.9	35.8
40-49 years	11.9	39.3	26.4	45.8	34.8	41.9	43.4	43.9	32.4	42.5
50-59 years	21.5	15.5	31.7	18.2	37.1	17.3	29.6	23.2	34.1	17.7
60-69 years	28.4	4.8	21.9	5.2	11.6	2.5	8.8	1.2	14.4	3.5
70-92 years	30.4	1.2	10.4	0.5	2.6	0.3	1.6	1.2	6.2	0.6

Illinois Dental Hygienist Data Tables

Table 1: Illinois Registered Dental Hygienists, 2004 Summary of Clinically Practicing Registered Dental Hygienists

	Number	Percent
Urbanicity		
Cook	957	30.7
Collar	908	29.1
Urban	730	23.4
Rural	527	16.9
Gender		
Female	3128	99.6
Male	14	0.4
Number of practice sites		
One	2369	75.5
Two	667	21.3
Three	102	3.3
Race and Ethnicity		
White	2967	95.2
Hispanic	62	2.0
Other	88	2.8
Hours worked per week		
Less than 21 hours	804	26.3
21–30 hours	849	27.8
31–40 hours	1251	40.9
More than 40 hours	152	5.0
Age groups		
20-29 years	489	15.7
30-39 years	909	29.1
40-49 years	1088	34.9
50-60 years	571	18.3
60+ years	62	2.0
Plans to stop practice		
1-2 years	75	2.5
3-5 years	140	4.6
6-7 years	272	8.9
No Plans	2557	84.0

Table 2: Illinois Registered Dental Hygienists, 2004
Summary of Clinically Practicing Registered Dental Hygienists by Urbanicity

	Cook	Collar	Rural	Urban	Illinois
	%	%	%	%	%
Gender					
Female	99.2	99.9	99.6	99.7	99.6
Male	0.8	0.1	0.4	0.3	0.4
Number of Practice sites					
One	70.5	75.7	79.3	78.6	75.5
Two	24.7	20.0	19.7	19.7	21.3
Three	4.8	4.3	0.9	1.6	3.3
Race and Ethnicity					
White	90.3	96.4	98.3	97.9	95.2
Hispanic	3.8	2.0	0.2	1.0	2.0
Other	6.9	1.6	1.5	1.0	2.8
Hours worked per week					
Less than 21 hours	28.2	32.7	21.1	19.5	26.3
21-30 hours	26.2	28.8	31.2	26.2	27.8
31-40 hours	38.4	33.2	45.8	50.6	40.9
More than 40 hours	7.3	5.5	1.9	3.6	5.0
Age Groups					
20-29 years	15.0	10.8	19.5	19.4	15.7
30-39 years	26.9	29.3	32.5	29.7	29.1
40-49 years	37.1	38.5	31.2	30.4	34.9
50-60 years	17.5	19.6	16.1	19.4	18.3
60+ years	3.6	1.8	0.8	1.1	2.0
Plans to stop Practice					
1-2 years	2.6	3.0	0.8	2.8	2.5
3-5 years	5.3	4.2	4.7	4.1	4.6
6-7 years	9.4	10.0	6.7	8.5	8.9
No plans	82.7	82.8	87.8	84.6	84.0

Appendix 1

Illinois Department of Financial and Professional Regulation Illinois Department of Public Health

The Illinois State Board of Dentistry and Illinois Department of Financial and Professional Regulation, in cooperation with the Illinois Department of Public Health (IDPH), request the following information be completed and returned to IDPH. This information is confidential; no personal identifiers are included in your response.

1. Are you currently practicing clinical dentistry in Illinois? (circle one) Y N

IF "NO", YOU HAVE COMPLETED THE SURVEY. THANK YOU. (see below for mailing instructions).
IF "YES", GO TO QUESTION #2.

2. Which **one** of the following **best describes** your clinical practice? (circle one number)

General dentistry	1	Periodontics	6
Prosthodontics	2	Oral and maxillofacial surgery	7
Endodontics	3	Oral Pathology	8
Orthodontics	4	Other _____	9
Pediatric dentistry	5		

3. Indicate your primary practice location: County _____ ZIP Code _____

How many hours per week do you see patients at this location? _____

Is this a private practice? (circle one) Y N

4. Indicate your secondary office location (if applicable): County _____ ZIP Code _____

How many hours per week do you see patients at this location? _____

Is this a private practice? (circle one) Y N

5. Which dental school awarded your D.D.S. or D.M.D. degree? (circle one)

Northwestern	1	UIC	3	Other	5
Loyola	2	SIU	4		

6. Year of birth 19____

7. Gender (circle one) M F

8. Race/Ethnicity (circle one)

White	1	Asian	4
Black/African American	2	Multiracial	5
Hispanic	3	Other	6

9. Do you plan to completely stop practicing clinical dentistry in Illinois in any of the following time frames?

within 1 – 2 years? Y N

within 3 – 5 years? Y N

within 6 – 10 years? Y N

THANK YOU

**Please add any comments you may have. Return the questionnaire by folding and sealing as indicated.
Drop in the mail. Postage is paid.**

Appendix 2

Illinois Department of Financial and Professional Regulation Illinois Department of Public Health

The Illinois State Board of Dentistry and Illinois Department of Financial and Professional Regulation, in cooperation with the Illinois Department of Public Health (IDPH), request the following information be completed and returned to IDPH. This information is confidential; no personal identifiers are included in your response.

1. Are you currently practicing clinical dental hygiene in Illinois? (circle one) Y N

IF "NO," YOU HAVE COMPLETED THE SURVEY. THANK YOU. (see below for mailing instructions)
IF "YES," GO TO QUESTION #2

2. Indicate your primary practice location: County _____ ZIP Code _____

How many hours per week do you see patients at this location? _____

Is this a private practice? (circle one) Y N

3. Indicate your secondary practice location (if applicable): County _____ ZIP Code _____

How many hours per week do you see patients at this location? _____

Is this a private practice? (circle one) Y N

3. Indicate a third practice location (if applicable): County _____ ZIP Code _____

How many hours per week do you see patients at this location? _____

Is this a private practice? (circle one) Y N

5. Did you complete your dental hygiene education in Illinois? Y N

Name of program _____

6. Year of birth 19____

7. Gender M F

8. Race/Ethnicity (circle one)

White	1	Asian	4
Black/African American	2	Multiracial	5
Hispanic	3	Other	6

9. Do you plan to completely stop practicing clinical dentistry in Illinois in any of the following time frames?

within 1 – 2 years? Y N

within 3 – 5 years? Y N

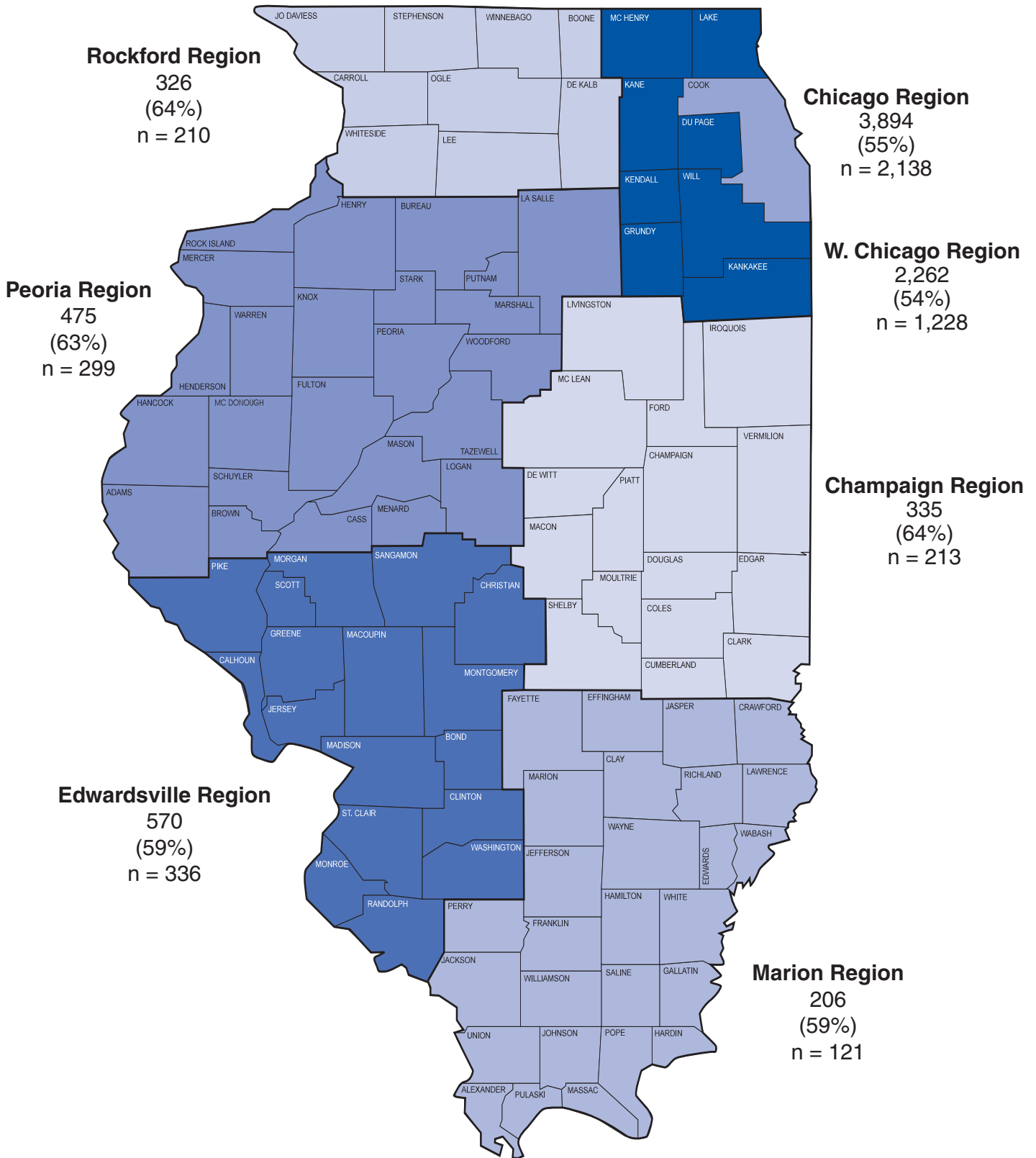
within 6 – 10 years? Y N

THANK YOU

**Please add any comments you may have. Return the questionnaire by folding and sealing as indicated.
Drop in the mail. Postage is paid.**

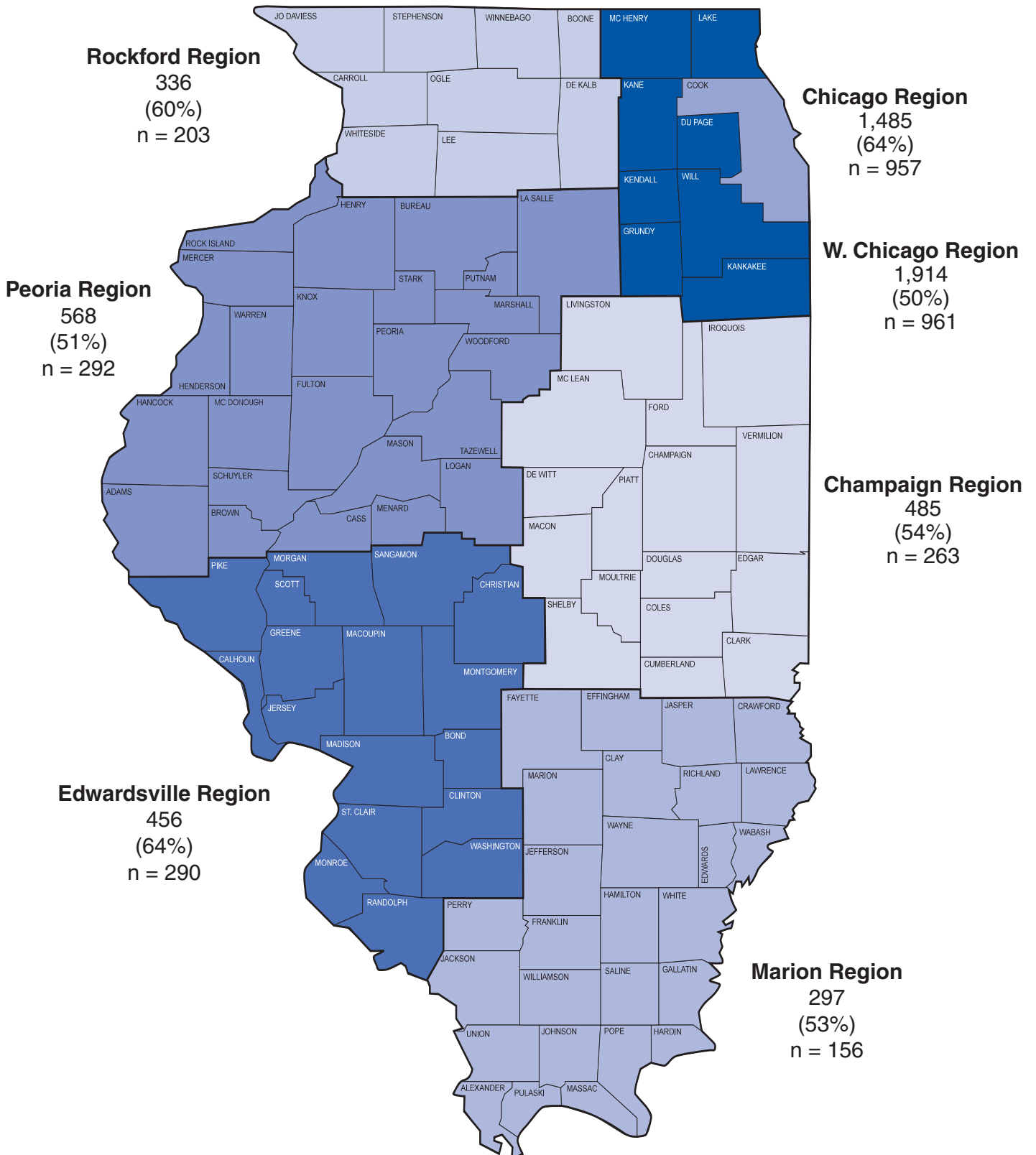
Appendix 3

Licensed Dentists by Region (September, 2004) (Percent Respondents)



Appendix 4

Licensed Dental Hygienists by Region (September, 2004) (Percent Respondents)



County Urbanicity

