

AHEAD OF WHAT'S NEXT.

A Survey of Handwashing Behavior (Trended)

**Prepared for: The American Microbiology Society and The American
Cleaning Institute**

August 2010

Research Objectives

- The objective of the research is to compare the observed number of U.S. adults who wash their hands after using a public restroom against the percentage who self-report that they wash their hands after using a public restroom.
- In addition, self-reported information was gathered via a nationally representative phone survey about handwashing habits in the following situations:
 - After petting a dog or cat
 - Before handling or eating food
 - After coughing or sneezing
 - After handling money
 - After changing a diaper
 - After using the bathroom in their home
- The ultimate goal of this research is to increase public awareness of the importance of handwashing.

Methodology – Telephone Survey

- The data from the telephone survey are based on a nationally representative sample, stratified by census region and weighted by gender, education and ethnicity composure to represent the U.S. population.
 - This method assures a valid national probability sample.
- Harris Interactive has conducted the self-reported handwashing habits among adult Americans in 2005, 2007 and 2010.
 - 1,006 telephone interviews were conducted between August 4-8, 2010.
 - 1,001 telephone interviews were conducted between August 17-20, 2007.
 - 1,013 telephone interviews were conducted between August 19-22, 2005.
- Findings from similar telephone studies in 2003 and 2000 are also referenced in this year's report.
- Findings from 1996 are referenced in the “2007 Detailed Findings” section of this report.

2010 Methodology – Public Attractions Observations

- Harris Interactive observed the behavior of 6,028 adults who appeared to be age 18 and older, in public restrooms located at major public attractions in the U.S. and recorded whether or not they washed their hands after using the facilities. The research was conducted in four cities and at six different locations:
 - Atlanta – Turner Field
 - Chicago – Museum of Science and Industry and Shedd Aquarium
 - New York City – Penn Station and Grand Central Station
 - San Francisco – Ferry Terminal Farmers Market
- Observers discreetly watched and recorded whether or not adults using public restrooms washed their hands. Observers were instructed to groom themselves (comb their hair, put on make-up, etc.) while observing and to rotate bathrooms every hour or so to avoid counting repeat users more than once. Observers were also instructed to wash their hands no more than 10% of the time.

2010 Methodology – Public Attractions Observations (cont.)

- The 2010 observational research results can be directly compared to the 2007 findings (6,076 observations) and 2005 findings (6,336 observations) as they took place at the same locations using the same methodology.
- The 2003 observational research findings are not directly comparable as they took place at different locations.
 - In particular, the 2003 observational research represent the observed behavior of 7,541 individuals in public restrooms located in major metropolitan airports in the U.S. and Canada, specifically: New York City, Chicago, San Francisco, Dallas, Miami and Toronto.

2010 Public Attractions Observations Summary

<i>City and Location</i>	<i>Male Washers</i>	<i>Male Non-Washers</i>	<i>Female Washers</i>	<i>Female Non-Washers</i>	<i>TOTAL</i>
Atlanta: Turner Field (Atlanta Braves baseball games)	490	266	756	16	1528
Chicago: Museum of Science and Industry	330	45	369	6	750
Chicago: Shedd Aquarium	296	79	346	29	750
New York City: Grand Central Station	132	39	151	29	351
New York City: Penn Station	431	148	471	99	1149
San Francisco: Ferry Terminal Farmers Market	630	120	711	39	1500
TOTAL	2309	697	2804	218	6028

Executive Summary

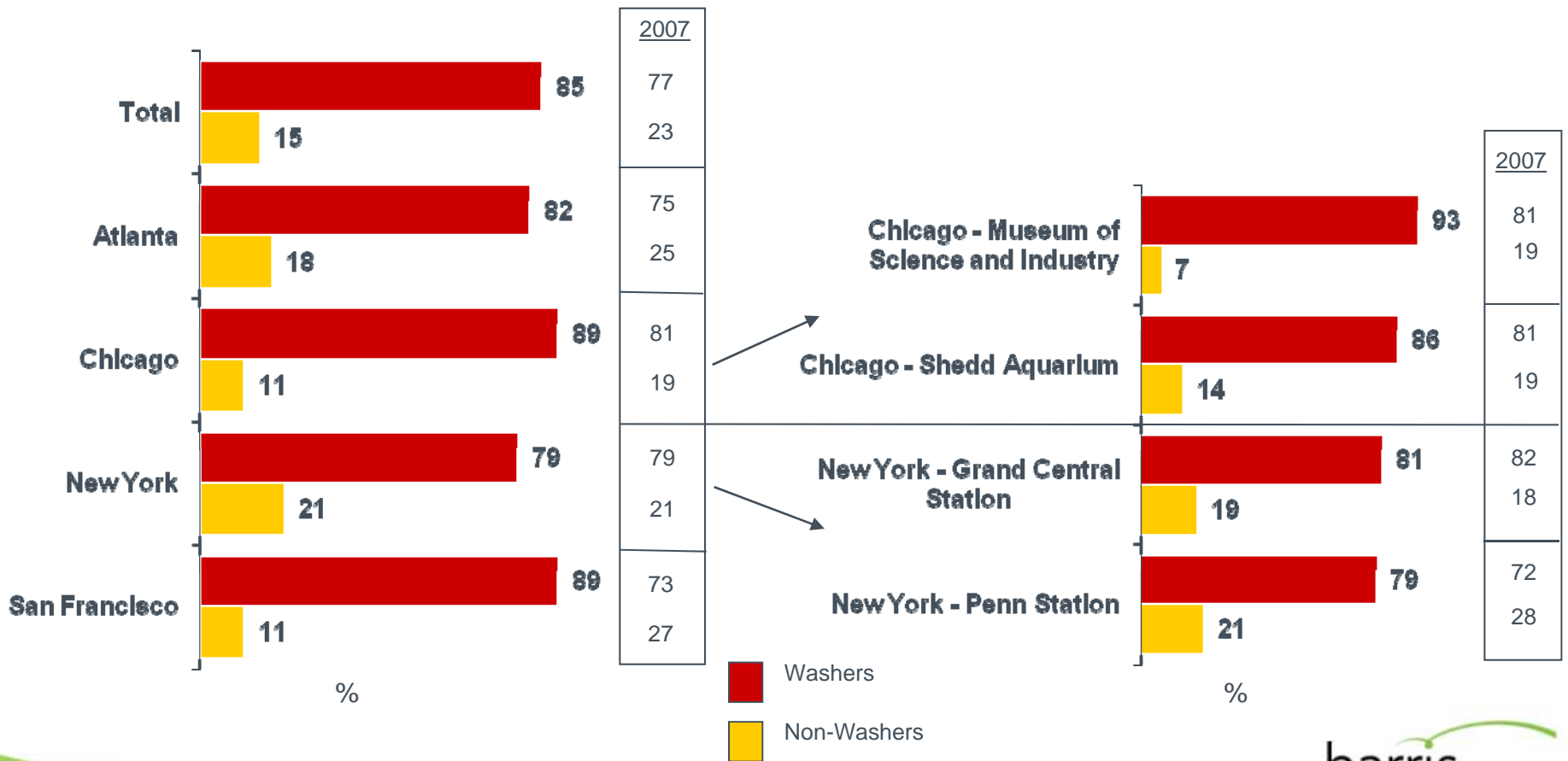
- Over the past waves of tracking, there has been a slight upward trend in self-reported handwashing behavior after using a public restroom. This year, the vast majority of adults (96%) say they *always* wash their hands after using public restrooms, compared with 92% in 2007 and 91% in 2005.
- While the vast majority (89%) of US adults self-report *always* washing their hands after using the bathroom in their home, only slightly more than one-third (39%) *always* wash after coughing or sneezing only and one-quarter (27%) *always* wash their hands after handling money.
- The activity with the greatest increase in self-reported handwashing behavior since 2007 is after changing a diaper, with 82% of all adults reporting this in 2010, an increase of 9% since 2007.
- Perhaps as a result of recent public health safety scares where the importance of handwashing received national media attention, the gap between self-reported behavior and observed behavior is smaller than the gap seen in 2007. This year 85% of adults were observed washing their hands after using public facilities compared with 77% in 2007. The increase in observed handwashing in public restrooms is more apparent among men, but higher percentages of women were also observed.
- As in 2007, the 2010 findings again illustrate that a greater percentage of women wash their hands than men.
 - The highest percentage of handwashing among men was observed in Chicago’s Museum of Science and Industry (88%), an increase of 14 points from 2007.
 - For women, while the highest percentage of handwashing was observed in both Chicago’s Museum of Science and Industry and Atlanta’s Turner Field at 98%, there was a greater increase at the museum from 2007 (+11 points).
 - The lowest percentage of handwashing among men (66%) was observed at Turner Field in Atlanta. However, this is an 8 point increase from 2007.
 - The lowest percentage of handwashing among women (83%) was observed at New York’s Penn Station. This is similar to the 82% observed handwashing there in 2007.



2010 Detailed Findings

2010 Public Attractions Observations

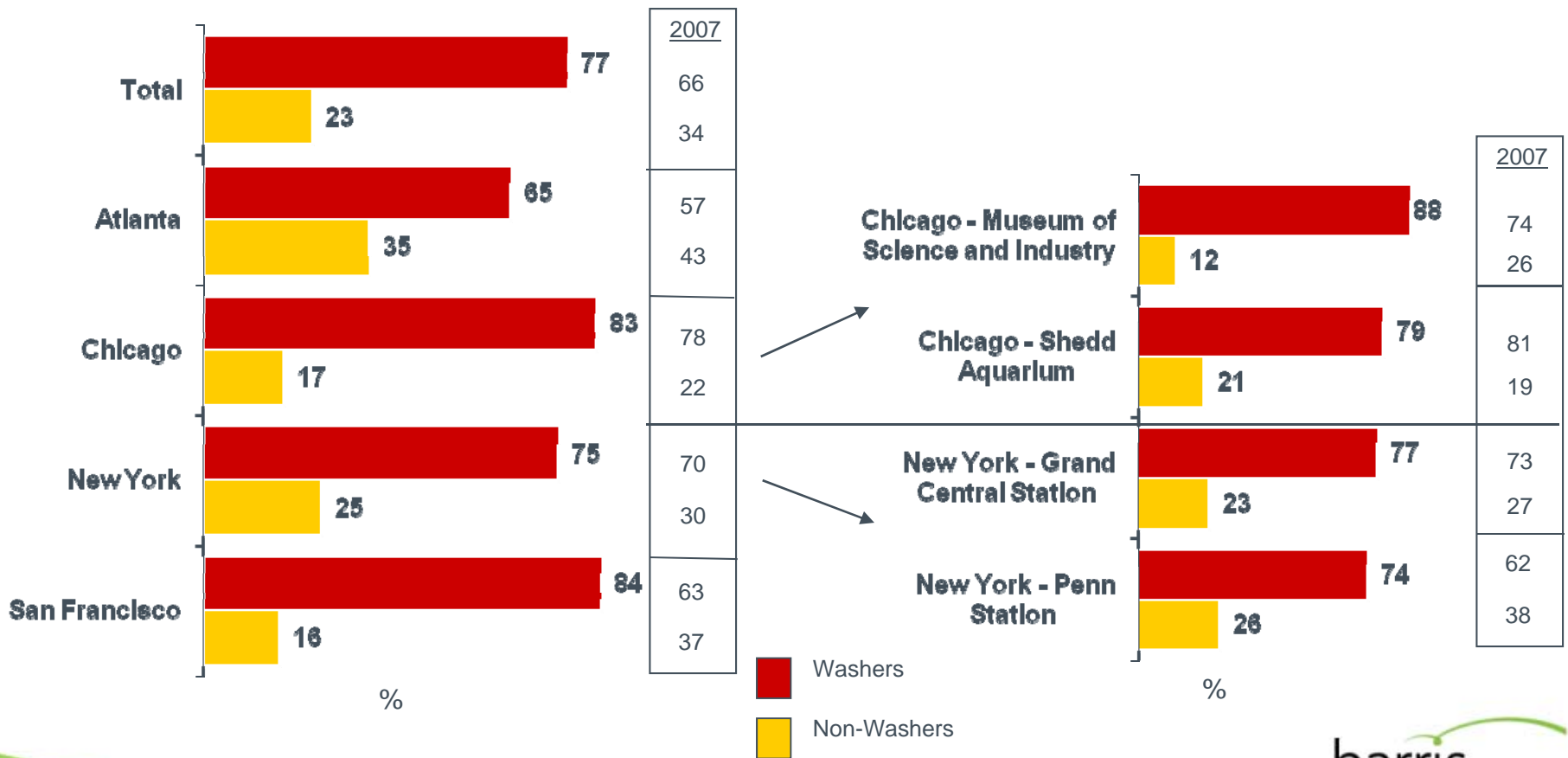
– 2010 Observational Findings Among Complete Sample –



2010 Based on the observation of 6,028 individuals in public restrooms located at major public attractions
 2007 Based on the observation of 6,076 individuals in public restrooms located at major public attractions

2010 Public Attractions Observations

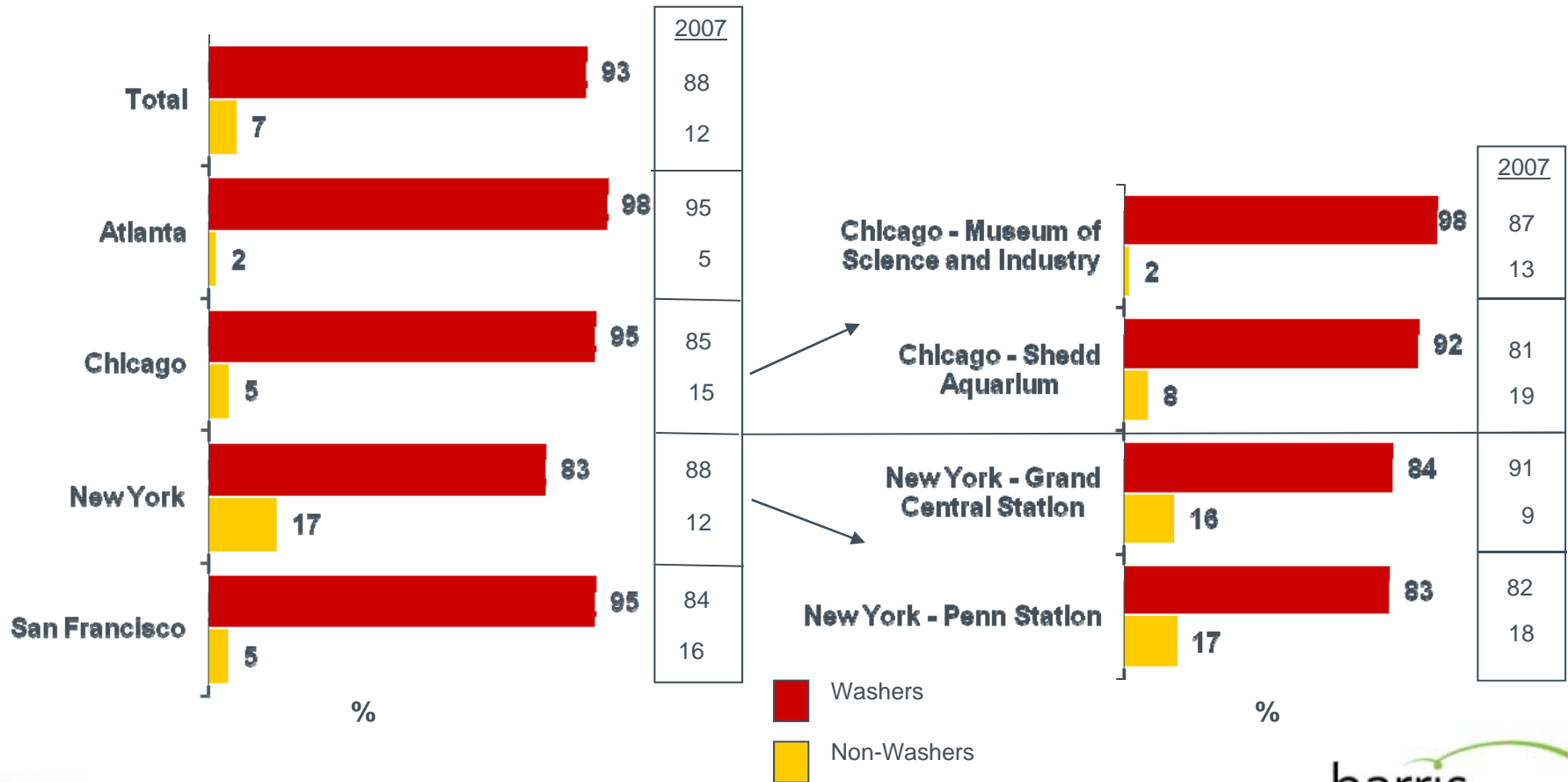
– 2010 Observational Findings Among Males –



2010 Based on the observation of 3,006 males
 2007 Based on the observation of 3,065 males

2010 Public Attractions Observations

– 2010 Observational Findings Among Females –

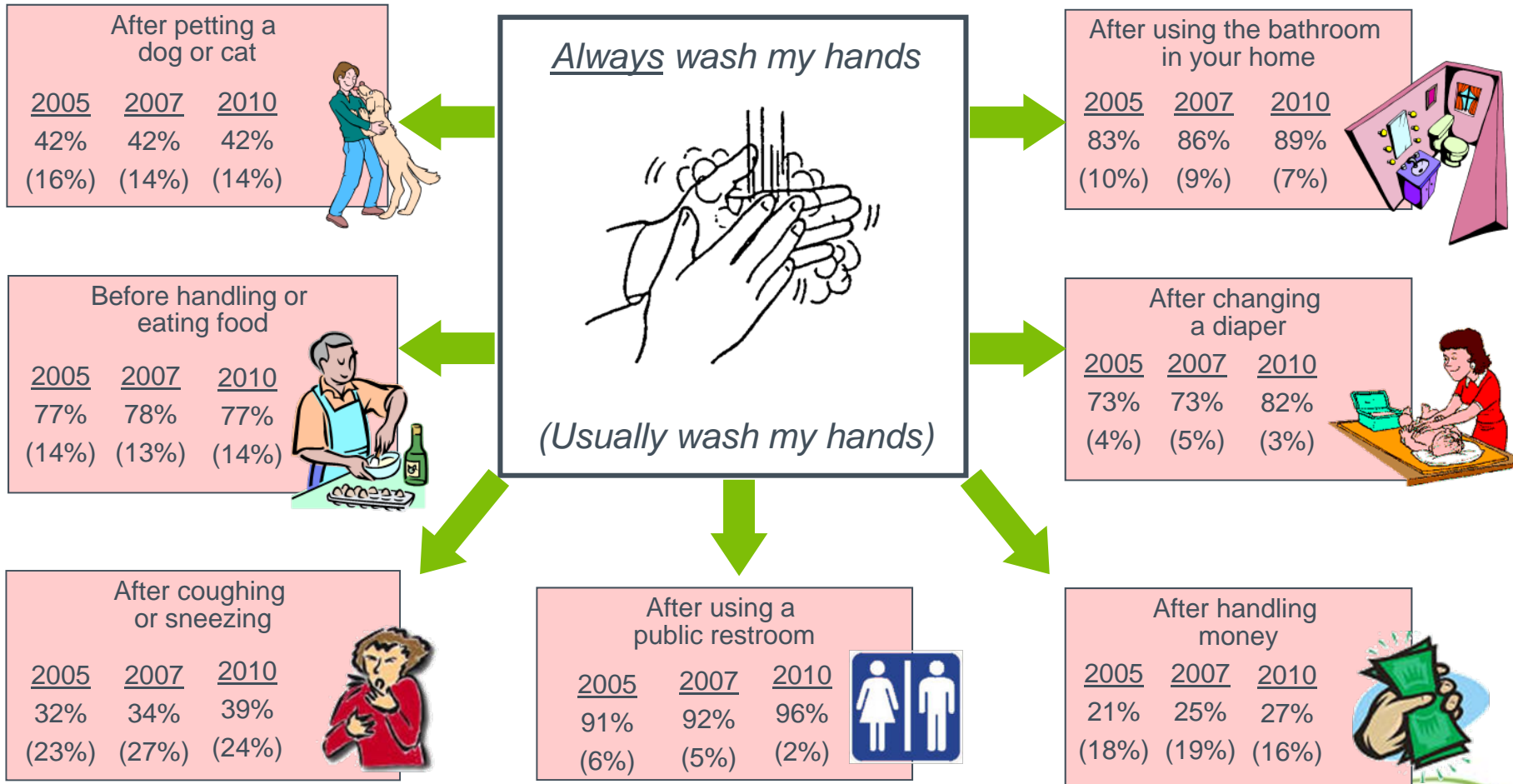


2010 Based on the observation of 3,022 females
 2007 Based on the observation of 3,011 females

Handwashing Habits: National Telephone Survey Results

How Frequently Do Americans Say They Are Washing Their Hands?



– Self Reported Handwashing Practices: Total Sample (2005 to 2010) –



Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

As in 2007, men remain less likely than women to wash their hands regardless of activity. They appear less likely than in 2007 to wash after handling money. This year both men and women are more likely to wash their hands after changing a diaper.

– Self Reported Handwashing Practices: Men vs. Women (2007 & 2010) –

		Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2007	2010	2007	2010	2007	2010	2007	2010	2007	2010	2007	2010	2005	2010
 Women	Always/ Usually	64	65	95	95	68	73	98	100	52	55	84	91	99	97
	Always	48	50	84	83	39	51	96	99	30	35	80	88	89	91
 Men	Always/ Usually	49	47	87	87	53	52	97	97	36	30	71	80	92	95
	Always	35	33	71	71	28	25	89	93	19	19	65	76	82	86

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Generally, various age groups suggest similar washing patterns. The most notable difference in handwashing since 2007, however, is that among all age groups more people report they “always” wash their hands after changing a diaper.

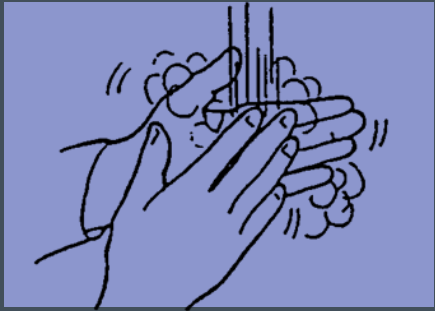
– Self Reported Handwashing Practices: By Age (2007 & 2010) –

		Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2007	2010	2007	2010	2007	2010	2007	2010	2007	2010	2007	2010	2007	2010
Age <35	Always/Usually	53	51	87	88	64	64	100	99	42	40	81	86	92	96
	Always	39	39	71	79	28	43	92	98	21	27	73	82	82	91
Age 35-54	Always/Usually	60	58	94	94	61	66	97	99	43	45	81	89	97	96
	Always	44	45	80	76	37	37	94	96	24	28	76	86	88	86
Age 55+	Always/Usually	57	59	93	91	59	59	96	98	48	44	71	82	97	97
	Always	44	41	83	77	37	36	92	94	29	27	69	79	89	90

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Overall, those with less education are more likely to wash after petting a dog/cat, after coughing/sneezing, and after handling money. Compared with 2007, a greater proportion of those with less education are currently more likely to wash after coughing/sneezing, using a public restroom, and after changing a diaper.

– Self Reported Handwashing Practices: By Education (2007 & 2010) and Income –

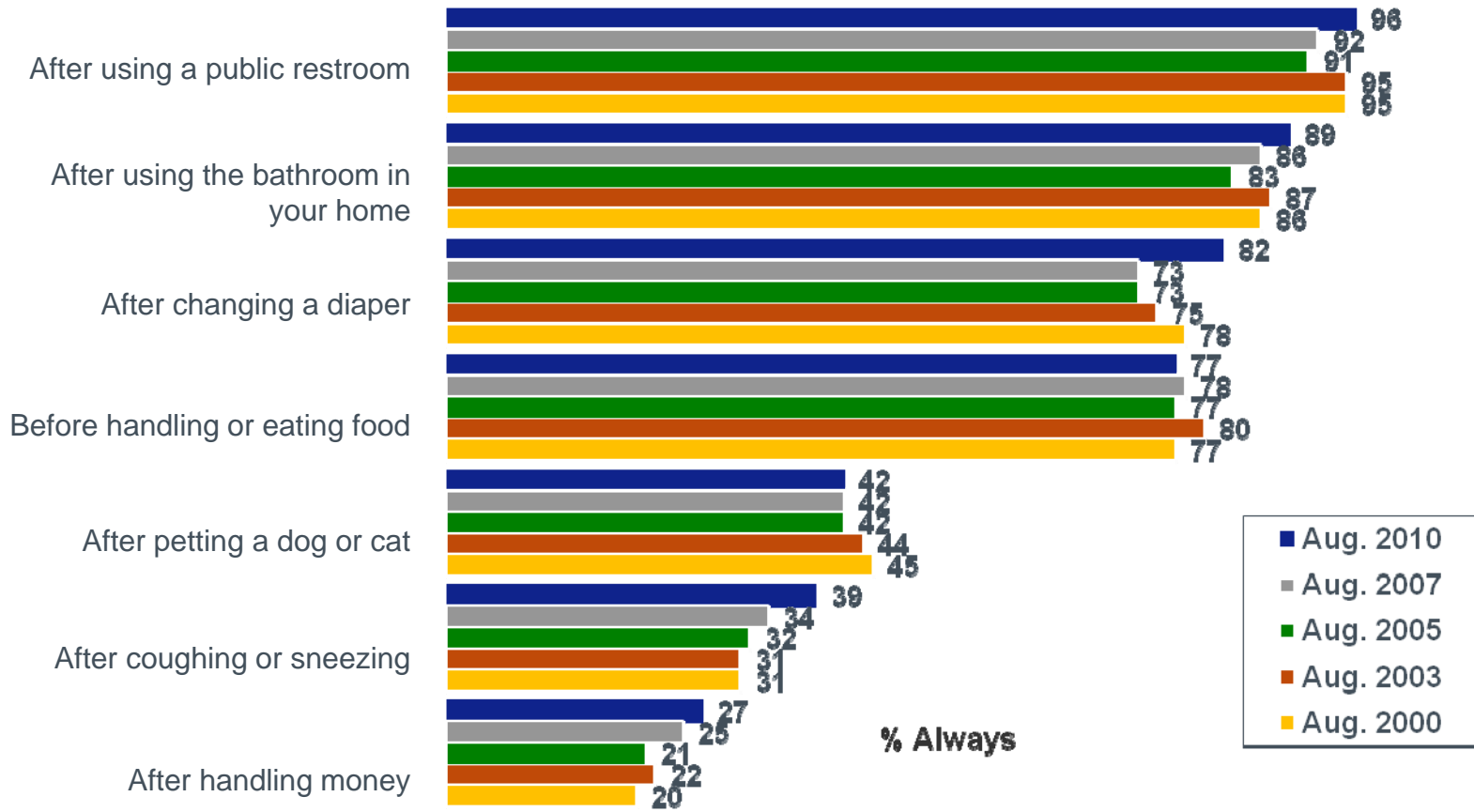
	%	Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2007	2010	2007	2010	2007	2010	2007	2010	2007	2010	2007	2010	2007	2010
															
Education:															
High School or Less	Always	46	47	78	76	37	45	89	97	31	32	72	85	85	89
Some College/ College/Post Grad	Always	38	37	76	78	32	33	95	96	19	23	73	81	87	89
Income Level*:															
Annual Income <\$50K	Always	-	47	-	82	-	46	-	95	-	35	-	85	-	90
Annual Income \$50K+	Always	-	37	-	73	-	30	-	98	-	17	-	82	-	87

*Income levels reported in 2010 differ from levels reported in 2007.

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Overall, self-reported handwashing patterns remain largely unchanged. The notable exception is the increased trend related to changing a diaper.

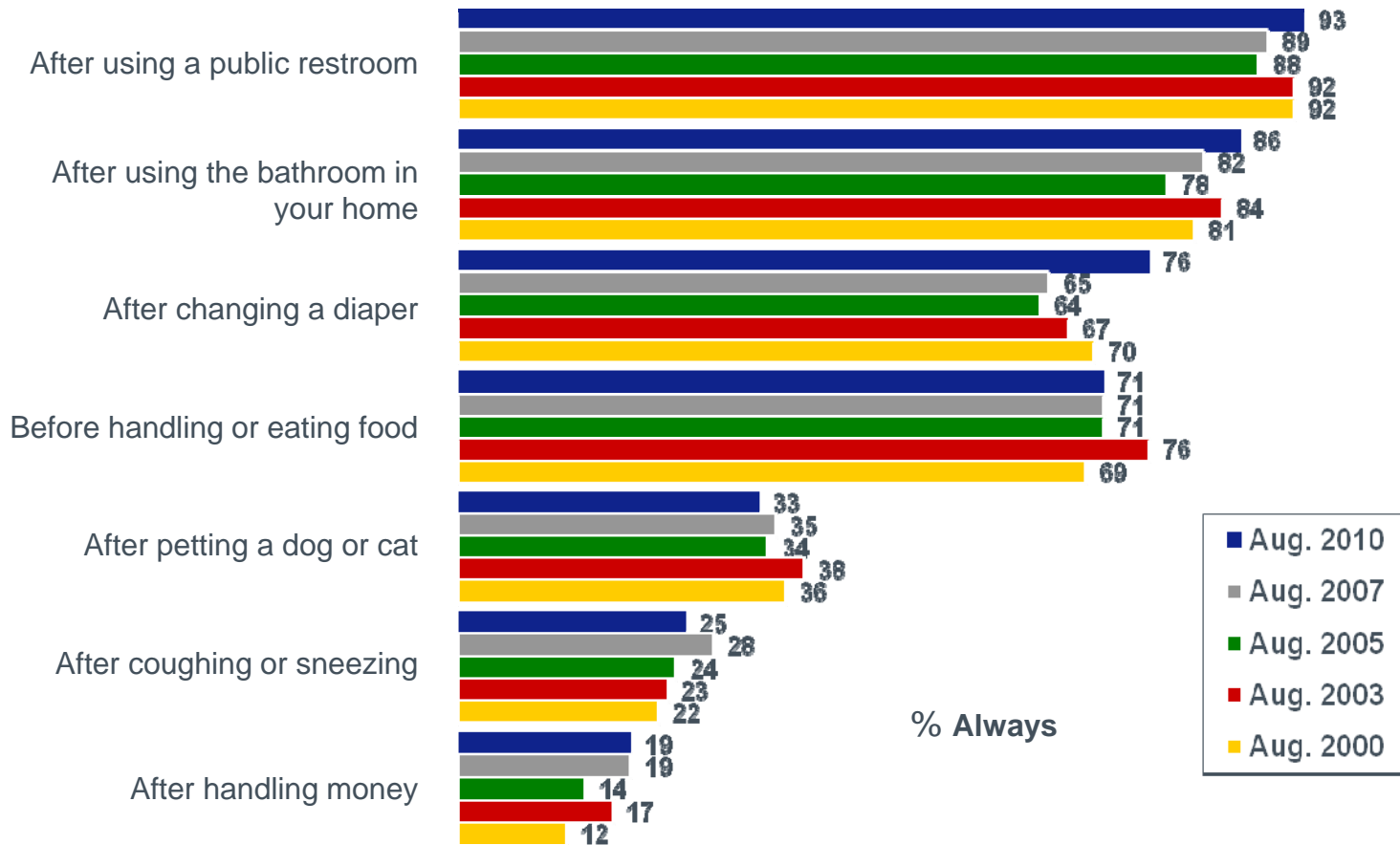
– Self Reported Handwashing Practices Among U.S. Adults (2000 to 2010) –



Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Compared to 2007, more males self-report handwashing after using a public restroom and the bathroom at home. The greatest increase, reaching the highest levels since tracking began in 1996, is after changing a diaper.

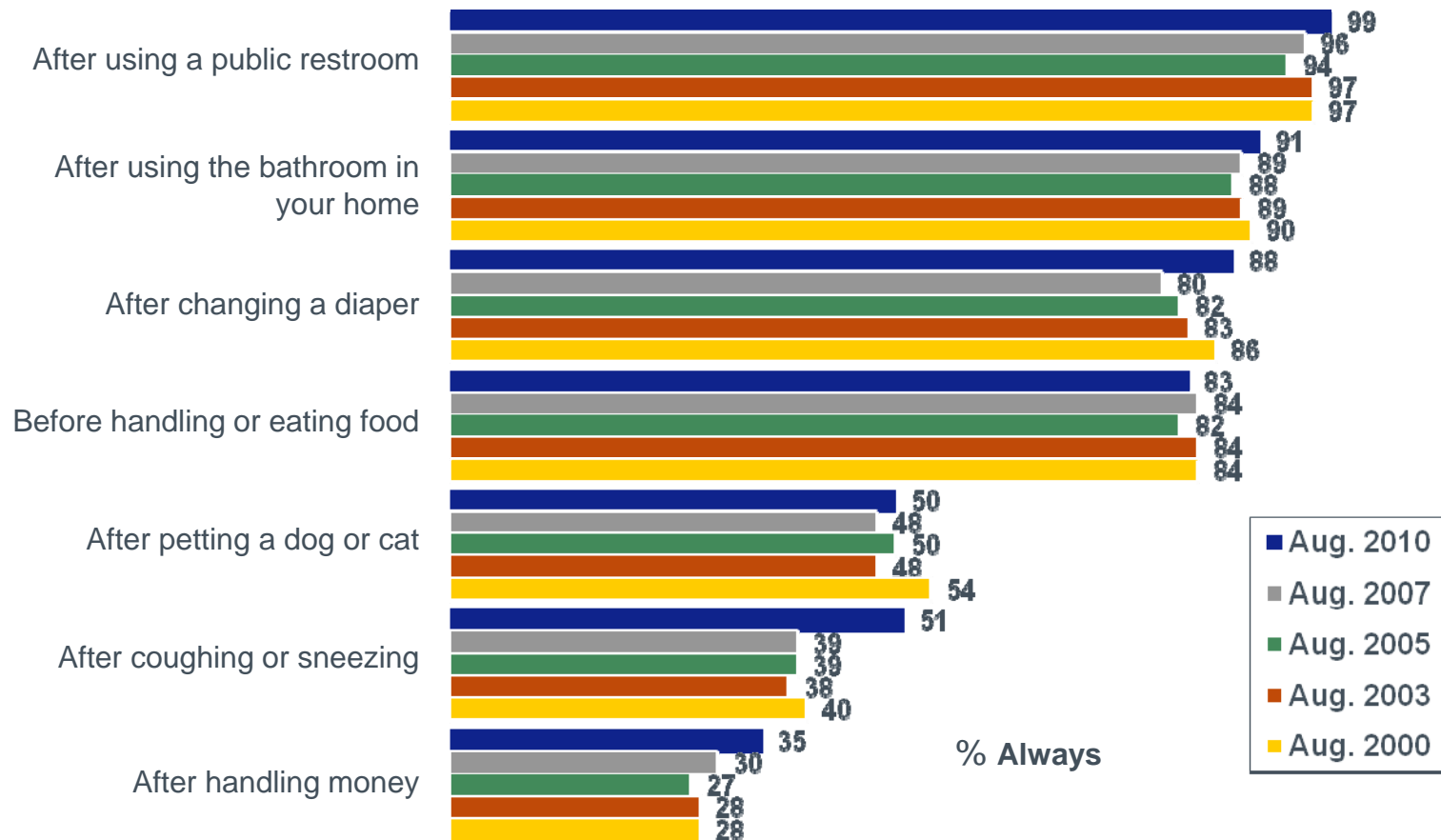
– Self Reported Handwashing Practices Among Males (2000 to 2010) –



Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Compared to 2007, females self-report increased handwashing on all nearly measures, most notably after changing a diaper and after coughing or sneezing.

– Self Reported Handwashing Practices Among Females (2000 to 2010) –



Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

2010 Telephone Survey Demographics

– Among U.S. Adults –

Gender

48% Male
52% Female

Age

29% Younger than 35
37% 35-54
32% 55 or older

Household Income

21% Less than \$25,000
21% \$25,000 to \$50,000
16% \$50,000 to \$75,000
13% \$75,000 to \$100,000
14% \$100,000 or more

Education

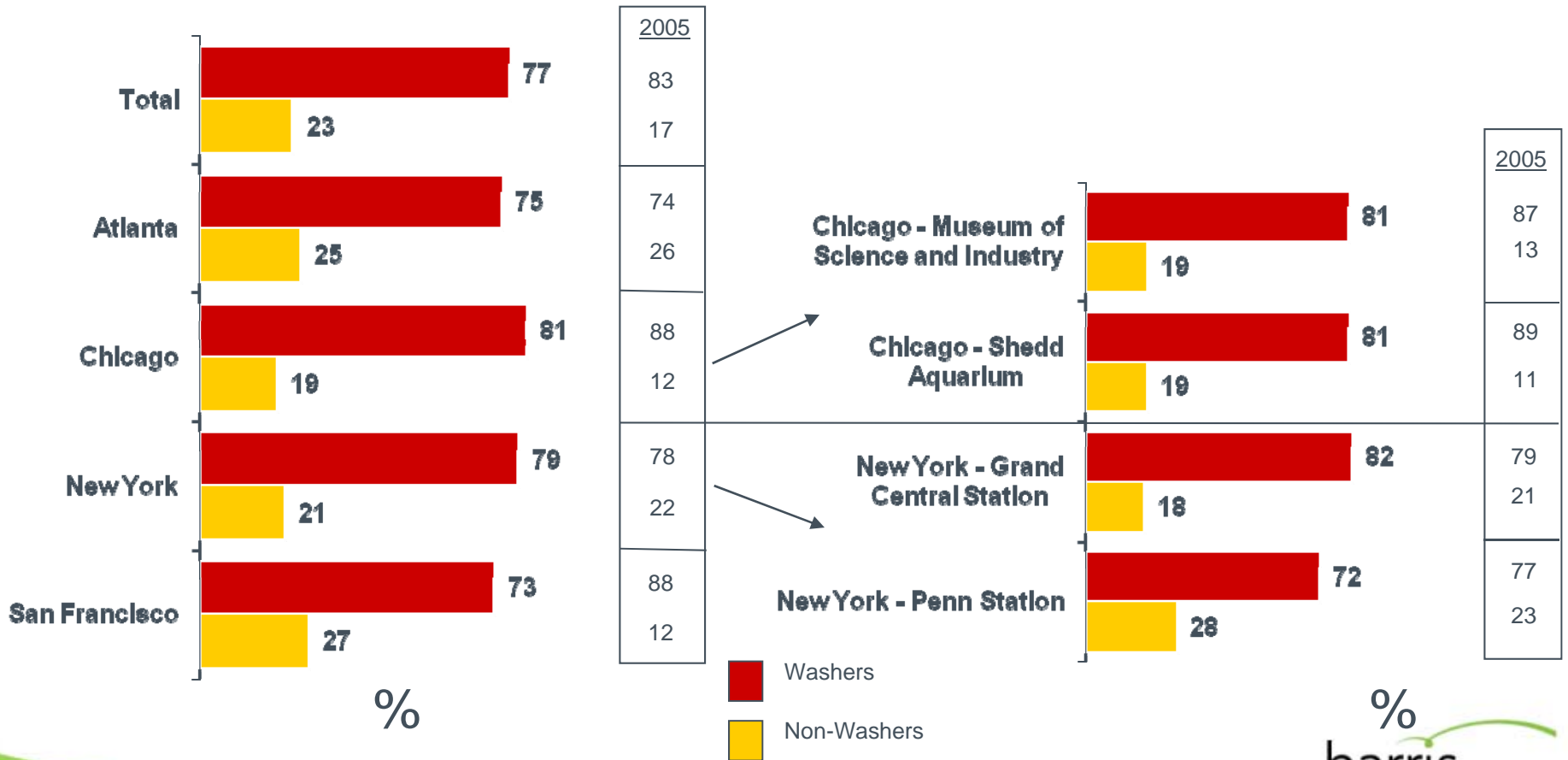
10% Some high school
36% High school grad
27% Some College
19% College grad
7% Post grad



2007 Detailed Findings

2007 Public Attractions Observations

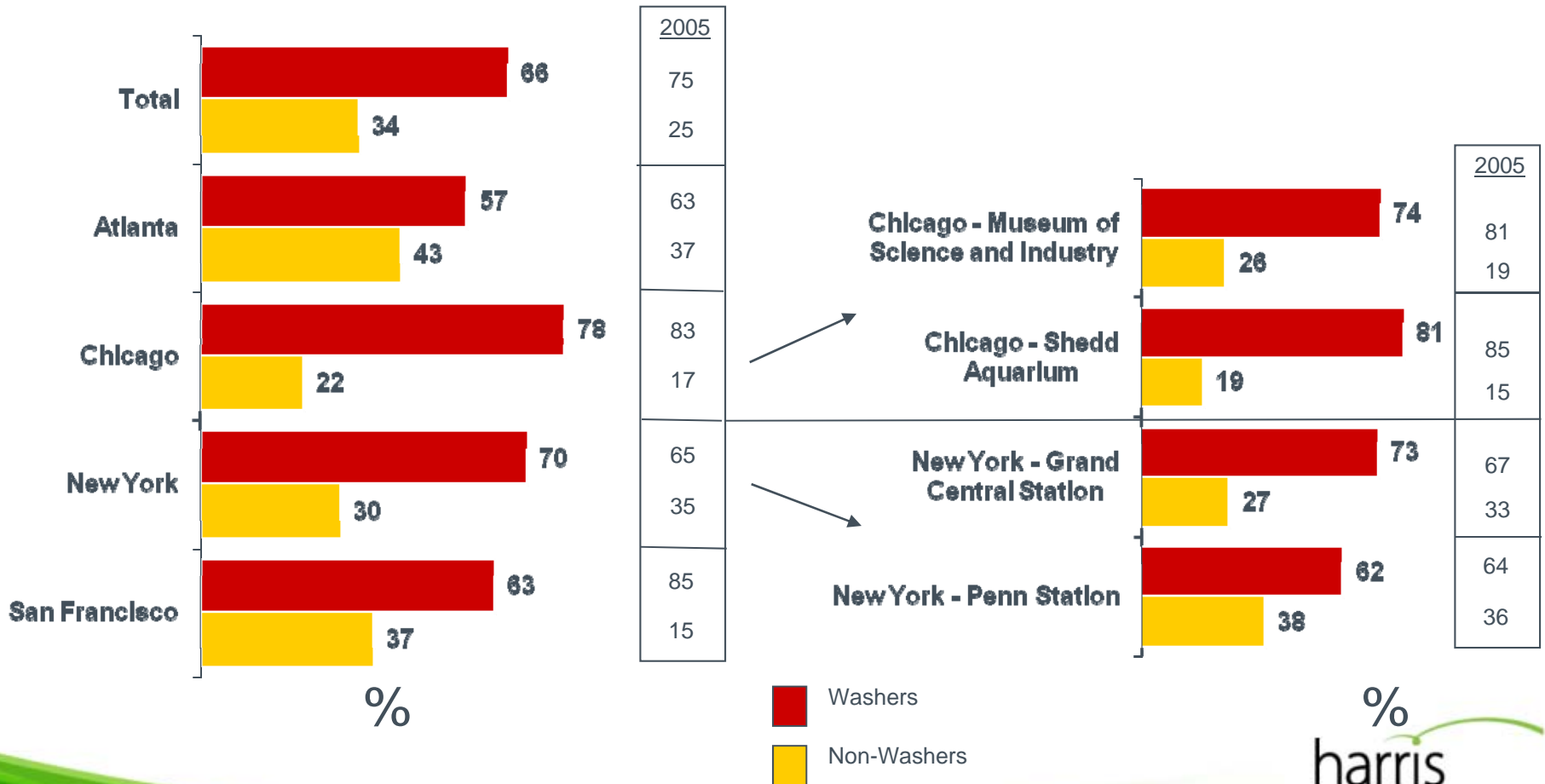
– 2007 Observational Findings Among Complete Sample –



2007 Based on the observation of 6,076 individuals in public restrooms located at major public attractions
 2005 Based on the observation of 6,336 individuals in public restrooms located at major public attractions

2007 Public Attractions Observations

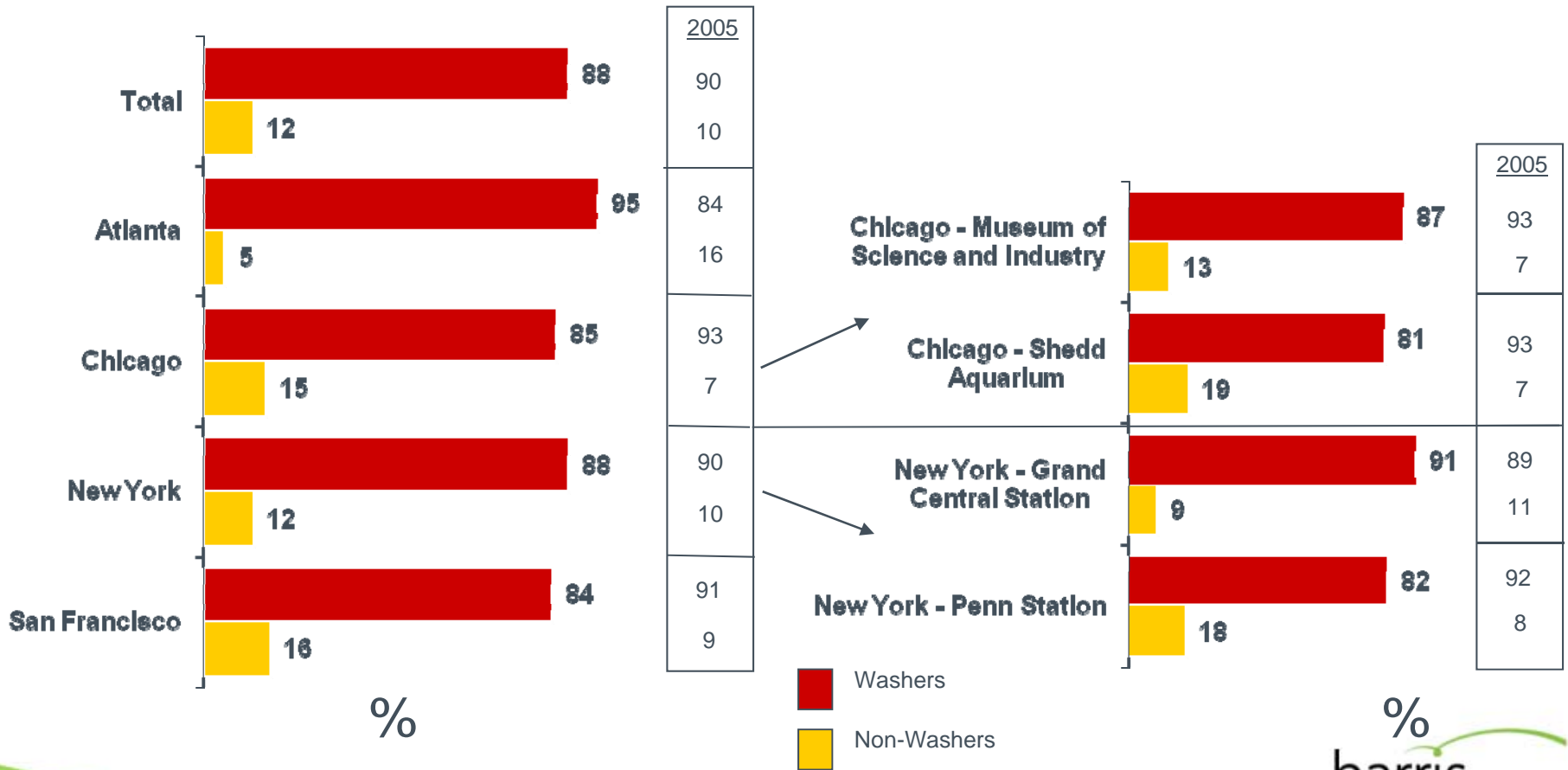
– 2007 Observational Findings Among Males –



2007 Based on the observation of 3,065 males
 2005 Based on the observation of 3,206 males

2007 Public Attractions Observations

– 2007 Observational Findings Among Females –

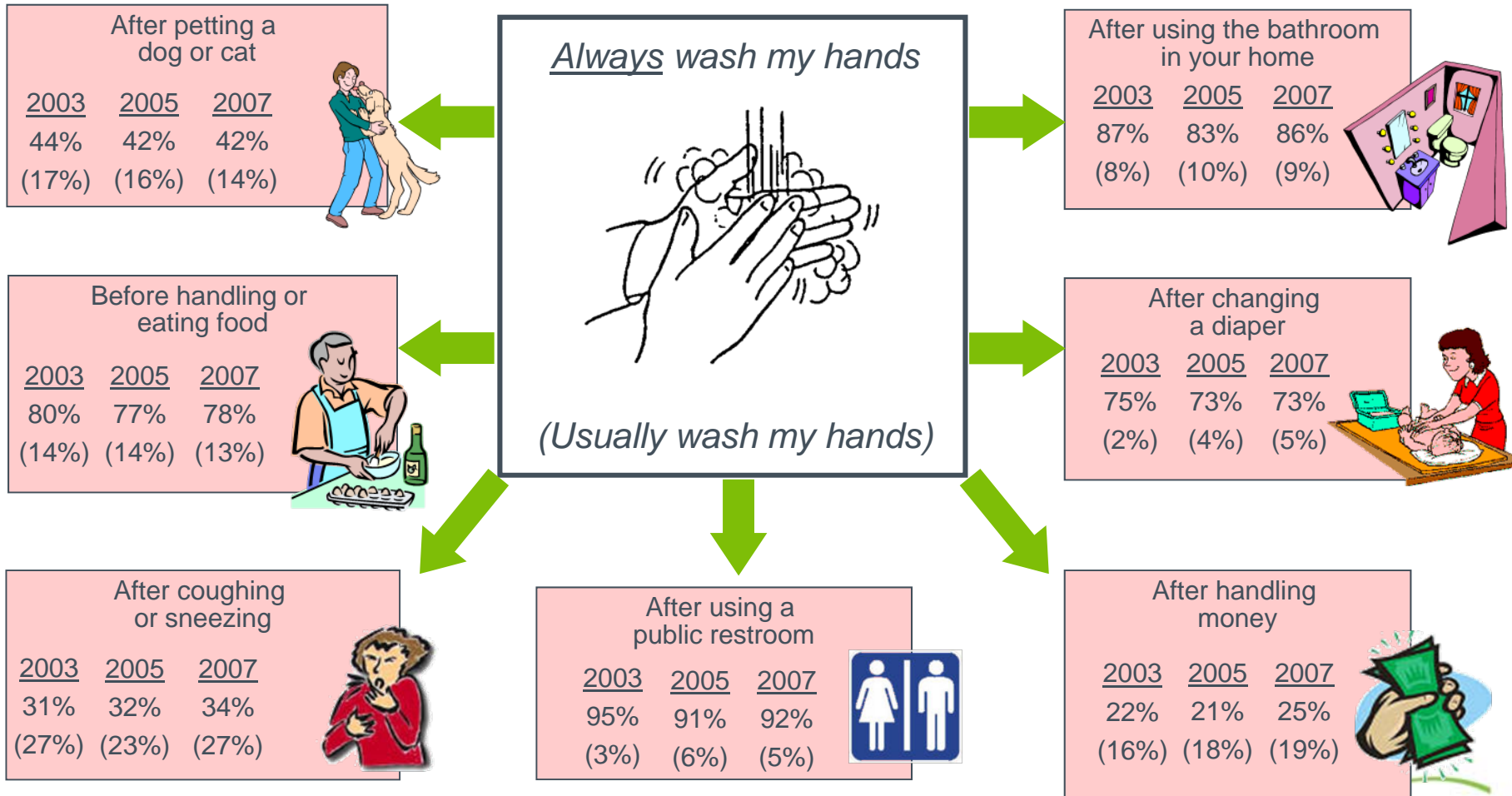


2007 Based on the observation of 3,011 females
 2005 Based on the observation of 3,130 females

Handwashing Habits: National Telephone Survey Results

How Frequently Do Americans Say They Are Washing Their Hands?




– Self Reported Handwashing Practices: Total Sample (2003 to 2007) –



Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

While men remain less likely than women to wash their hands regardless of activity, they appear more likely than last year to wash after coughing or sneezing. Similarly, both men and women are more likely to wash after handling money.

– Self Reported Handwashing Practices: Men vs. Women (2005 & 2007) –

		Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2005	2007	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007
 Women 	Always/ Usually	65	64	93	95	66	68	97	98	47	52	87	84	96	99
	Always	50	48	82	84	39	39	94	96	27	30	82	80	88	89
Men 	Always/ Usually	50	49	87	87	44	53	96	97	30	36	68	71	90	92
	Always	34	35	71	71	24	28	88	89	14	19	64	65	78	82

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Generally, various age groups suggest similar washing patterns with the exception of lower percentages of adults 55+ washing after diaper changes and adults younger than 35 less likely to wash before handling/eating food.

– Self Reported Handwashing Practices: By Age (2005 & 2007) –

		Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2005	2007	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007
Age <35	Always/Usually	61	53	85	87	56	64	98	100	37	42	76	81	91	92
	Always	47	39	72	71	35	28	94	92	20	21	72	73	82	82
Age 35-54	Always/Usually	58	60	93	94	58	61	98	97	37	43	85	81	93	97
	Always	39	44	77	80	32	37	93	94	21	24	80	76	83	88
Age 55+	Always/Usually	57	57	92	93	53	59	95	96	40	48	73	71	94	97
	Always	43	44	80	83	30	37	88	92	20	29	68	69	84	89

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Those with *higher education* are more diligent about washing their hands after using a public restroom. Similar to 2005 those with *lower incomes* are more likely to wash after petting a dog/cat, before handling/eating food, after coughing/sneezing, and after handling money.

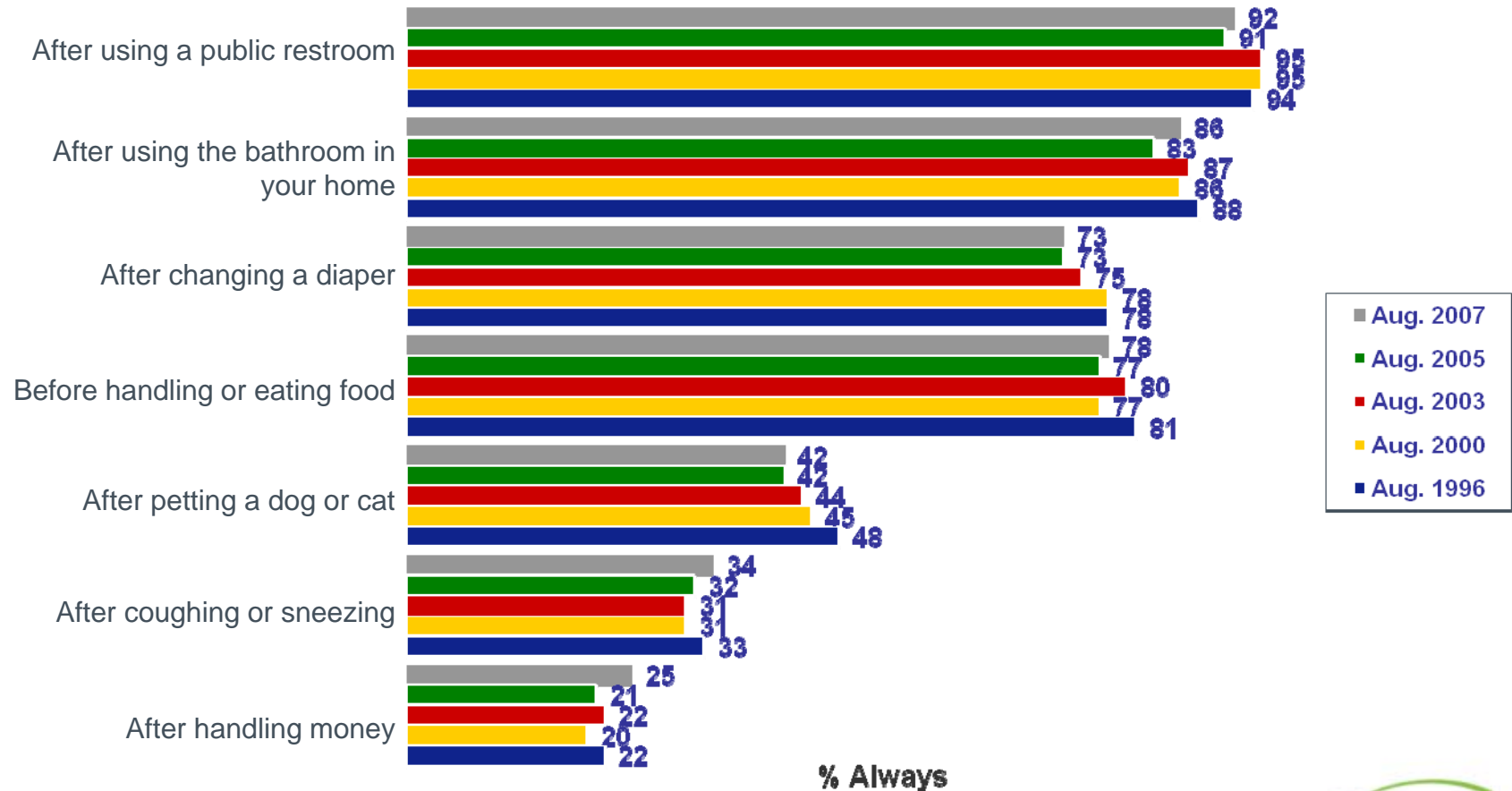
– Self Reported Handwashing Practices: By Education and Income Level (2005 & 2007) –

	%	Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2005	2007	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007	2005	2007
Education:															
High School or Less	Always	45	46	80	78	32	37	88	89	21	31	69	72	83	85
Some College/ College/Post Grad	Always	42	38	76	76	32	32	94	95	21	19	77	73	84	87
Income Level:															
Annual Income <\$40K	Always	47	50	82	83	36	38	93	94	24	28	74	71	83	87
Annual Income \$40K+	Always	37	35	72	75	27	29	92	91	18	19	76	75	84	85

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Overall, self-reported handwashing patterns remain largely unchanged. The notable exceptions are the declining trends related to petting a dog or cat and changing a diaper.

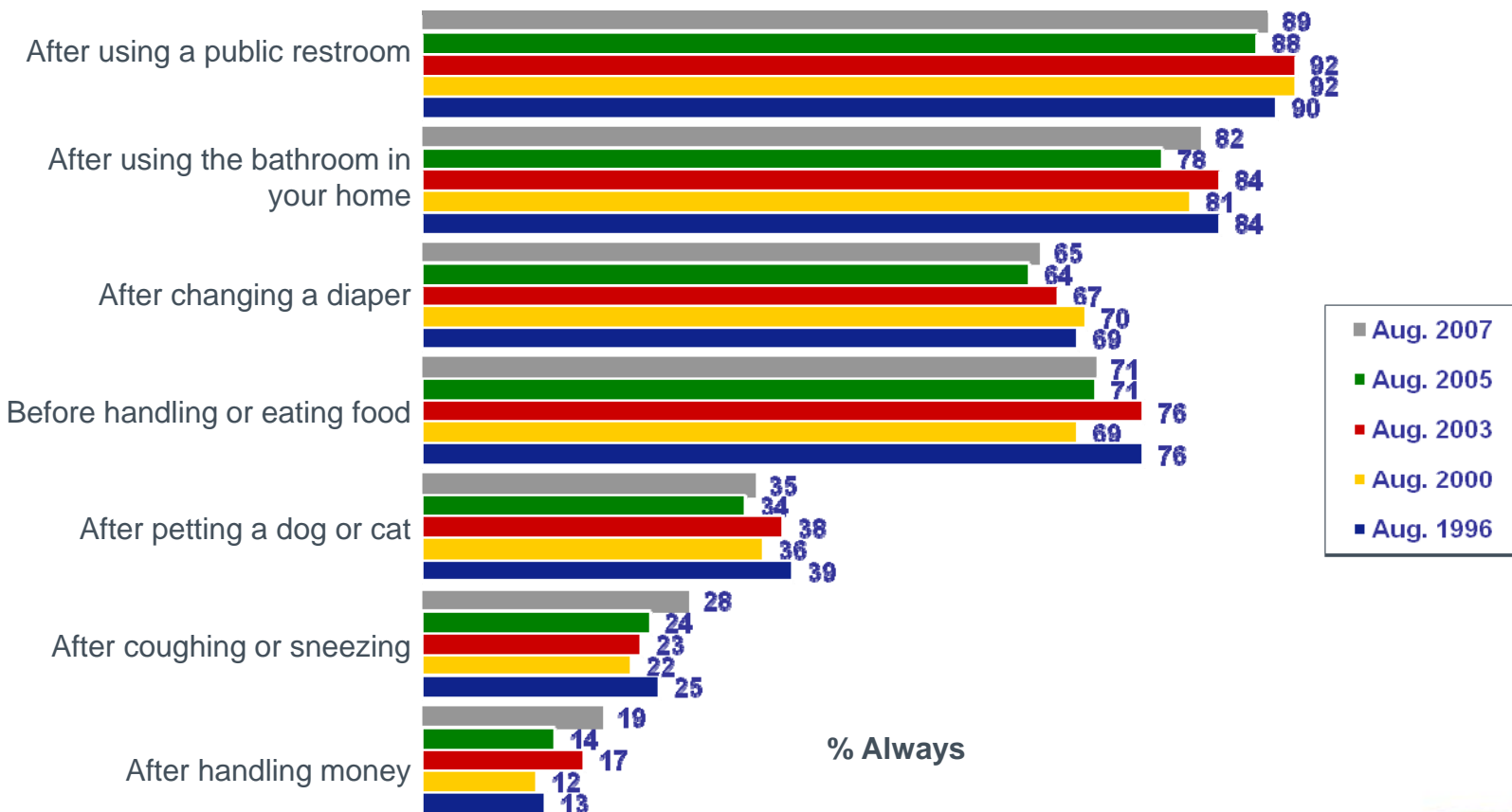
– Self Reported Handwashing Practices Among U.S. Adults (1996 to 2007) –



Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Relative to the 2005 findings, males self-reported handwashing patterns have either remained the same or increased (particularly after coughing or sneezing and after handling money, reaching the highest levels since tracking began in 1996).

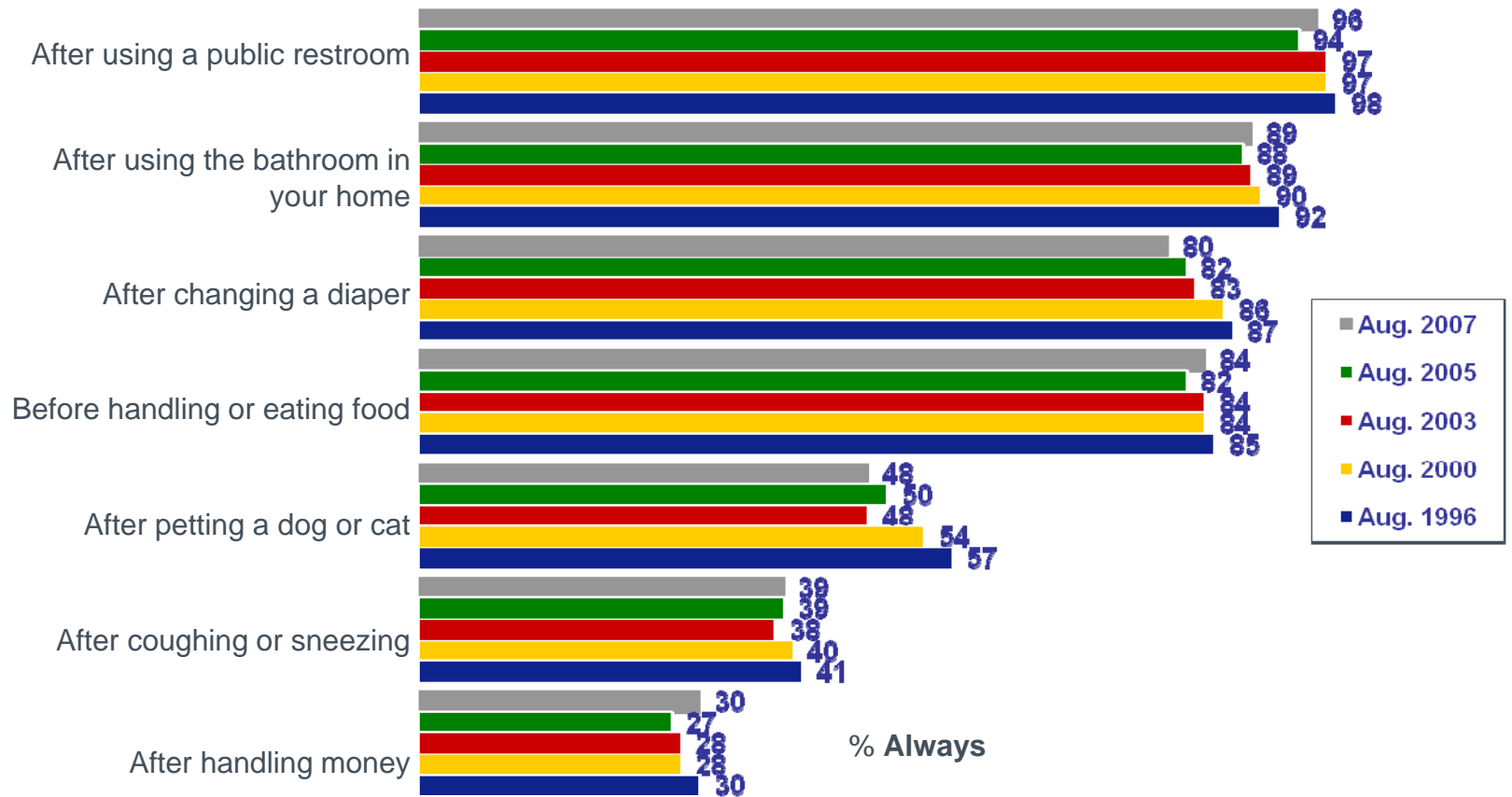
– Self Reported Handwashing Practices Among Males (1996 to 2007) –



Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

Self-reported handwashing patterns among females remains relatively unchanged from 2005. However, there has been a notable decline after petting a dog or cat.

– Self Reported Handwashing Practices Among Females (1996 to 2007) –



Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

2007 Telephone Survey Demographics

– Among U.S. Adults –

Gender

48% Male
52% Female

Age

28% Younger than 35
38% 35-54
31% 55 or older

Household Income

18% Less than \$20,000
13% \$20,000 to \$30,000
9% \$30,000 to \$40,000
8% \$40,000 to \$50,000
34% \$50,000 or more

Education

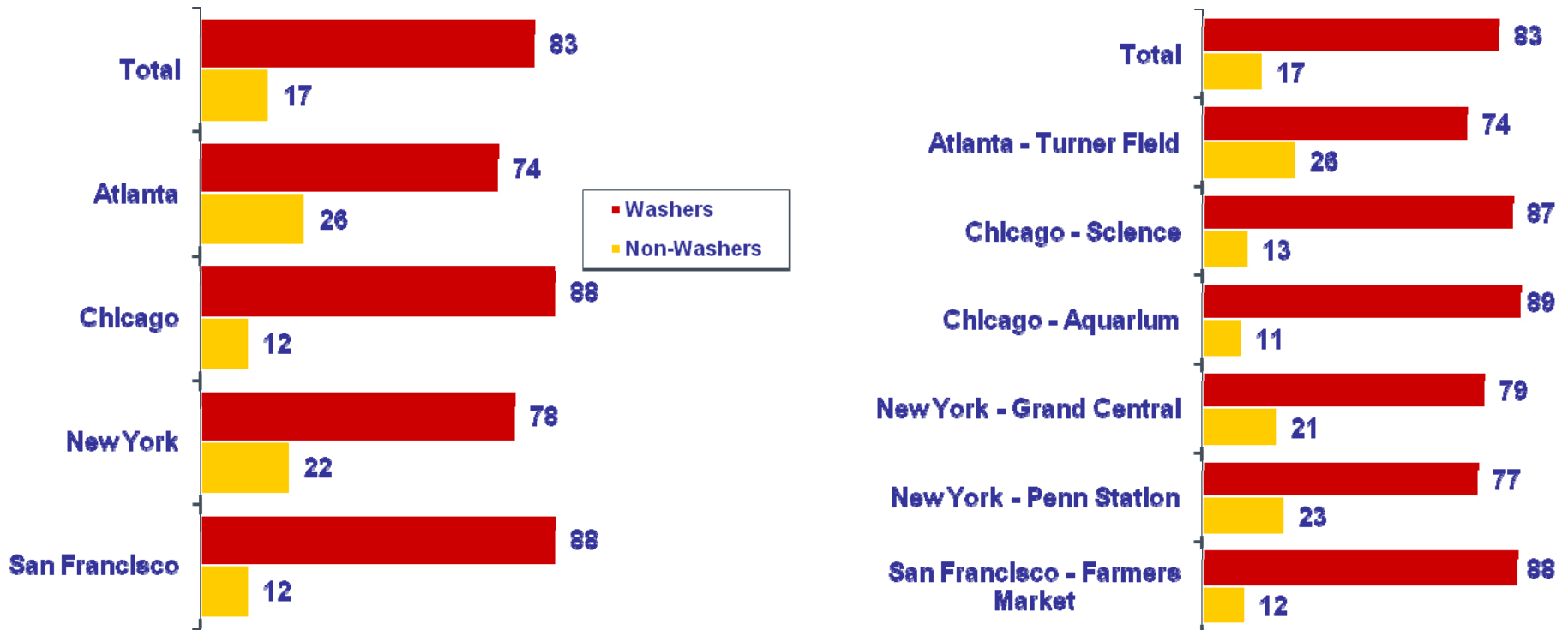
13% Some high school
32% High school grad
28% Some College
17% College grad
9% Post grad



2005 Detailed Findings

2005 Public Attractions Observations

– 2005 Observational Findings Among Complete Sample –

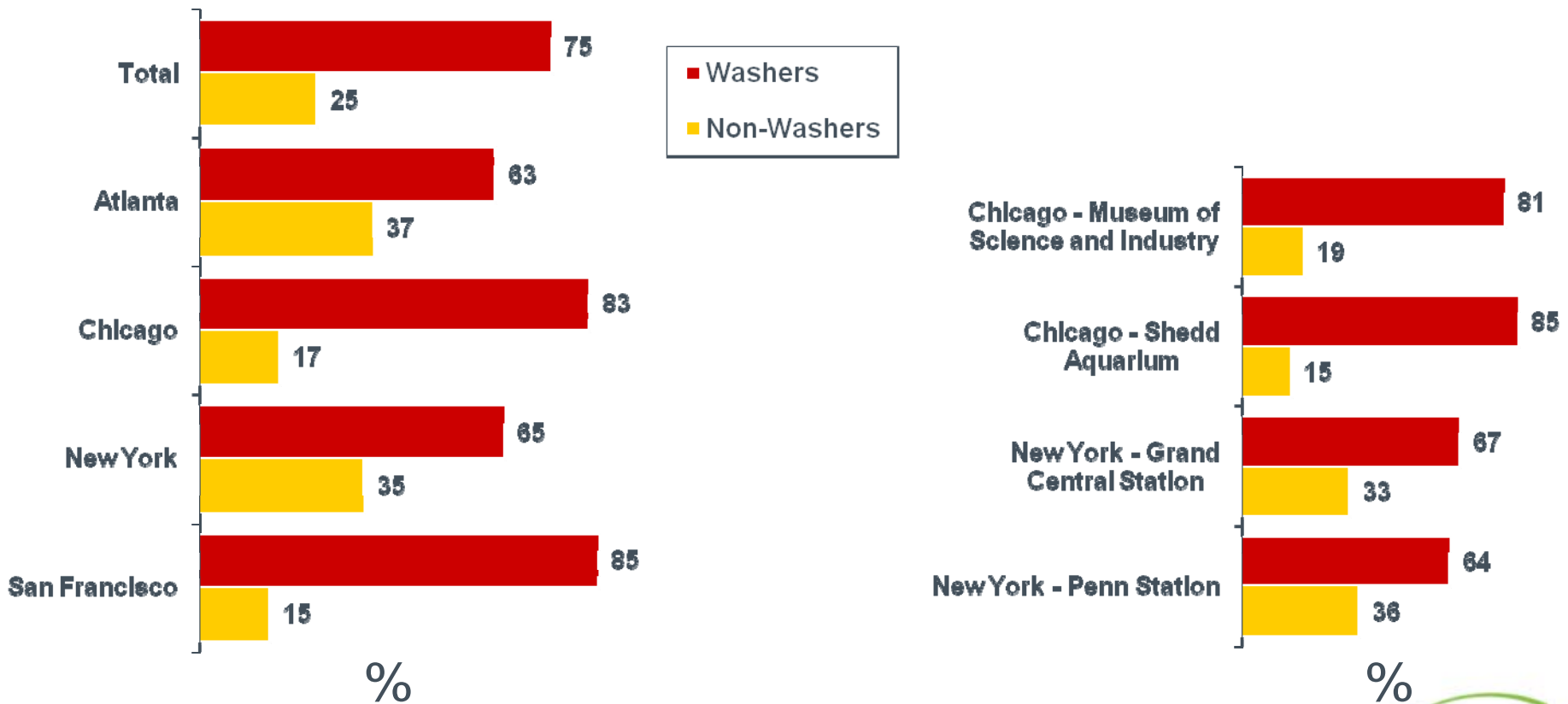


%

Based on the observation of 6,336 individuals in public restrooms located at major public attractions conducted in 2005.

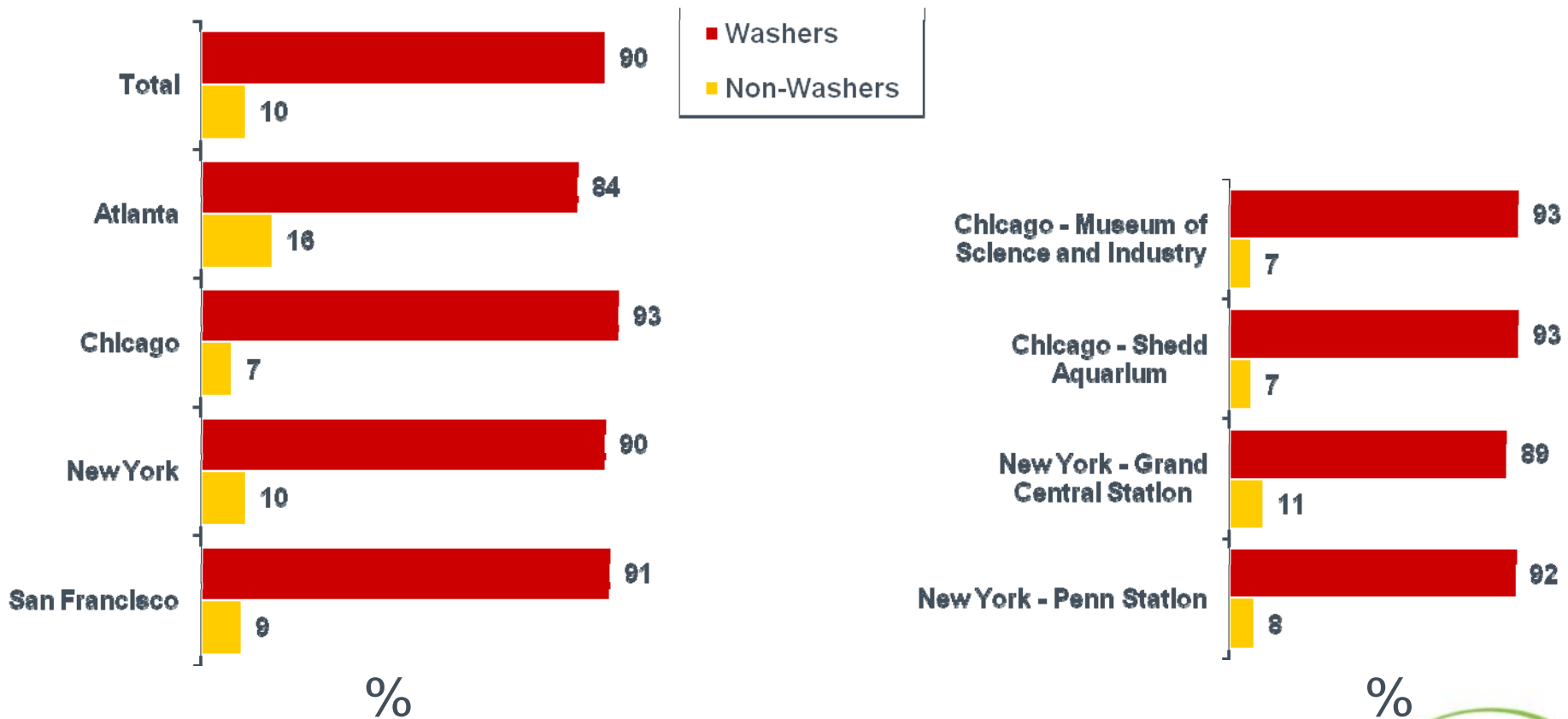
2005 Public Attractions Observations

– 2005 Observational Findings Among Males –



2005 Public Attractions Observations

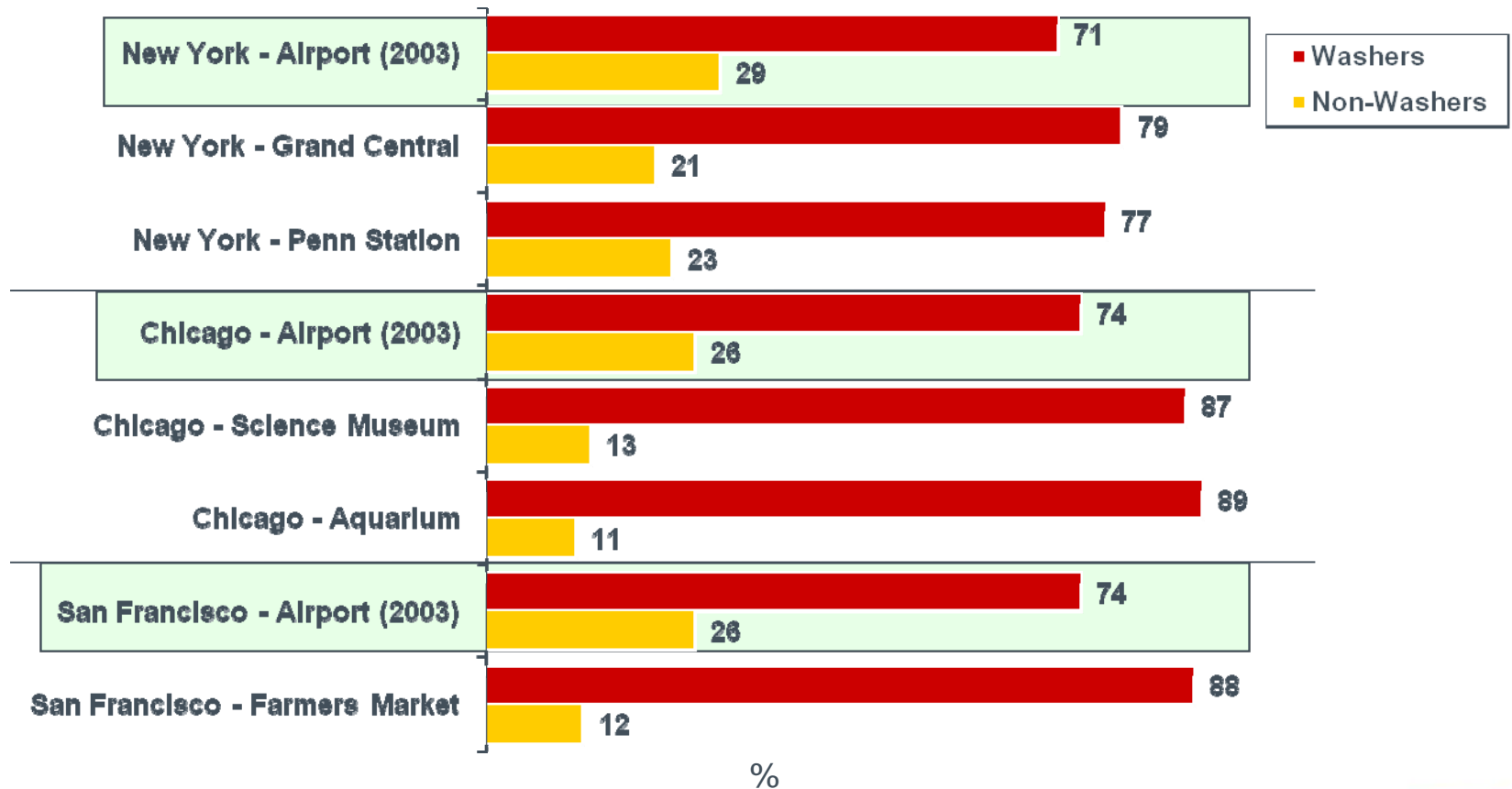
– 2005 Observational Findings Among Females –



Based on the observation of 3,130 females conducted in 2005.

Observational results in 2005 suggested likelihood to wash hands was consistently lower at airports across New York, Chicago and San Francisco (from 2003 findings)



– Among Complete Sample –



Based on the observational findings of individuals in public restrooms in major airports (2003 data) and public restrooms located at major public attractions (2005 data)

2005 Finding: Men and women alike are least likely to wash their hands after coughing or sneezing or after handling money. Men, however, are generally less likely than women to wash their hands regardless of activity.

– Self Reported Handwashing Practices: Men vs. Women (2003 & 2005) –

		Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005
<i>Women</i> 	Always/ Usually	66	65	96	93	69	66	99	97	47	47	85	87	95	96
	Always	48	50	84	82	38	39	97	94	28	27	83	82	89	88
<i>Men</i> 	Always/ Usually	54	50	91	87	45	44	97	96	28	30	70	68	94	90
	Always	38	34	76	71	23	24	92	88	17	14	67	64	84	78

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

2005 Finding: Whereas the oldest age group reported a greater tendency to wash their hands after most activities in 2003 compared to the younger age groups, 2005 results indicated a reversal of this trend, specifically related to petting a dog/cat and coughing/sneezing.

– Self Reported Handwashing Practices: By Age (2003 & 2005) –

		Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005
Age <35	Always/Usually	58	61	90	85	55	56	99	98	30	37	76	76	92	91
	Always	43	47	74	72	26	35	96	94	17	20	72	72	79	82
Age 35-54	Always/Usually	57	58	96	93	57	58	99	98	34	37	85	85	95	93
	Always	38	39	82	77	31	32	94	93	19	21	82	80	88	83
Age 55+	Always/Usually	65	57	95	92	60	53	97	95	47	40	73	73	95	94
	Always	49	43	82	80	33	30	94	88	29	20	72	68	89	84

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

2005 Finding: Those with *higher education* are more diligent about washing their hands after using a public restroom or changing diapers; those with *lower incomes* are more likely to wash after petting a dog/cat, before handling/eating food, after coughing/sneezing, and after handling money.

– Self Reported Handwashing Practices: By Education and Income Level (2003 & 2005) –

	%	Petting a Dog or Cat		Handling/Eating Food		Coughing/Sneezing		Using a Public Restroom		Handling Money		Changing Diapers		Using Bathroom at Home	
		2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005	2003	2005
Education:															
High School or Less	Always	52	45	86	80	33	32	96	88	27	21	77	69	88	83
Some College/ College	Always	36	42	75	76	28	32	93	94	18	21	75	77	86	84
Income Level:															
Annual Income <\$40K	Always	49	47	81	82	33	36	94	93	24	24	74	74	85	83
Annual Income \$40K+	Always	38	37	78	72	23	27	95	92	15	18	78	76	86	84

Q: I am going to read you a list of activities and I'd like you to tell me how often you make it a practice of washing your hands. How often do you wash your hands after...

2005 Telephone Survey Demographics

– Among U.S. Adults –

Gender

48% Male
52% Female

Age

24% Younger than 35
37% 35-54
36% 55 or older

Household Income

23% Less than \$20,000
12% \$20,000 to \$30,000
11% \$30,000 to \$40,000
7% \$40,000 to \$50,000
30% \$50,000 or more

Education

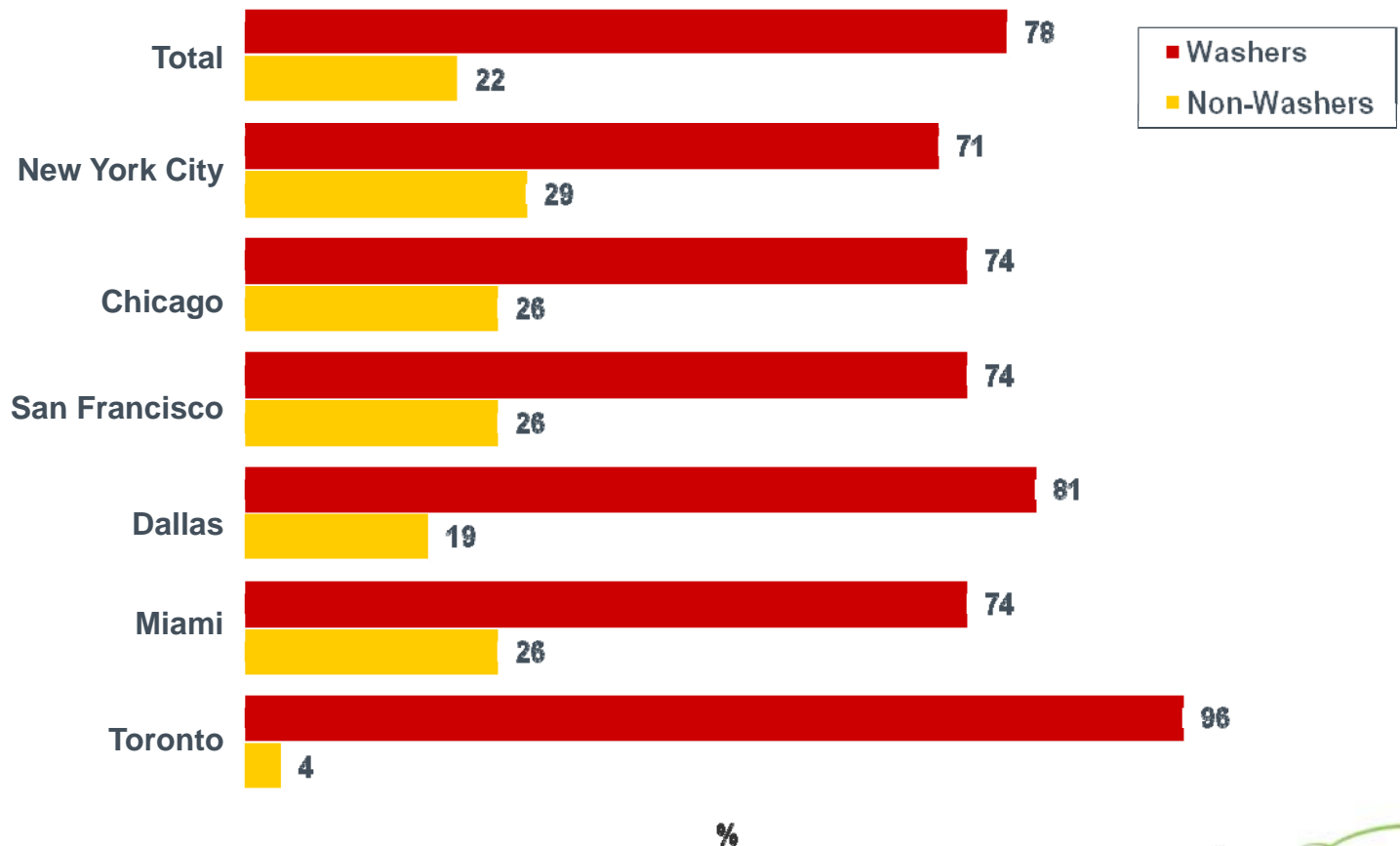
17% Some high school
30% High school grad
27% Some College
16% College grad
8% Post grad



2003 Observational Findings

2003 Airport Observations

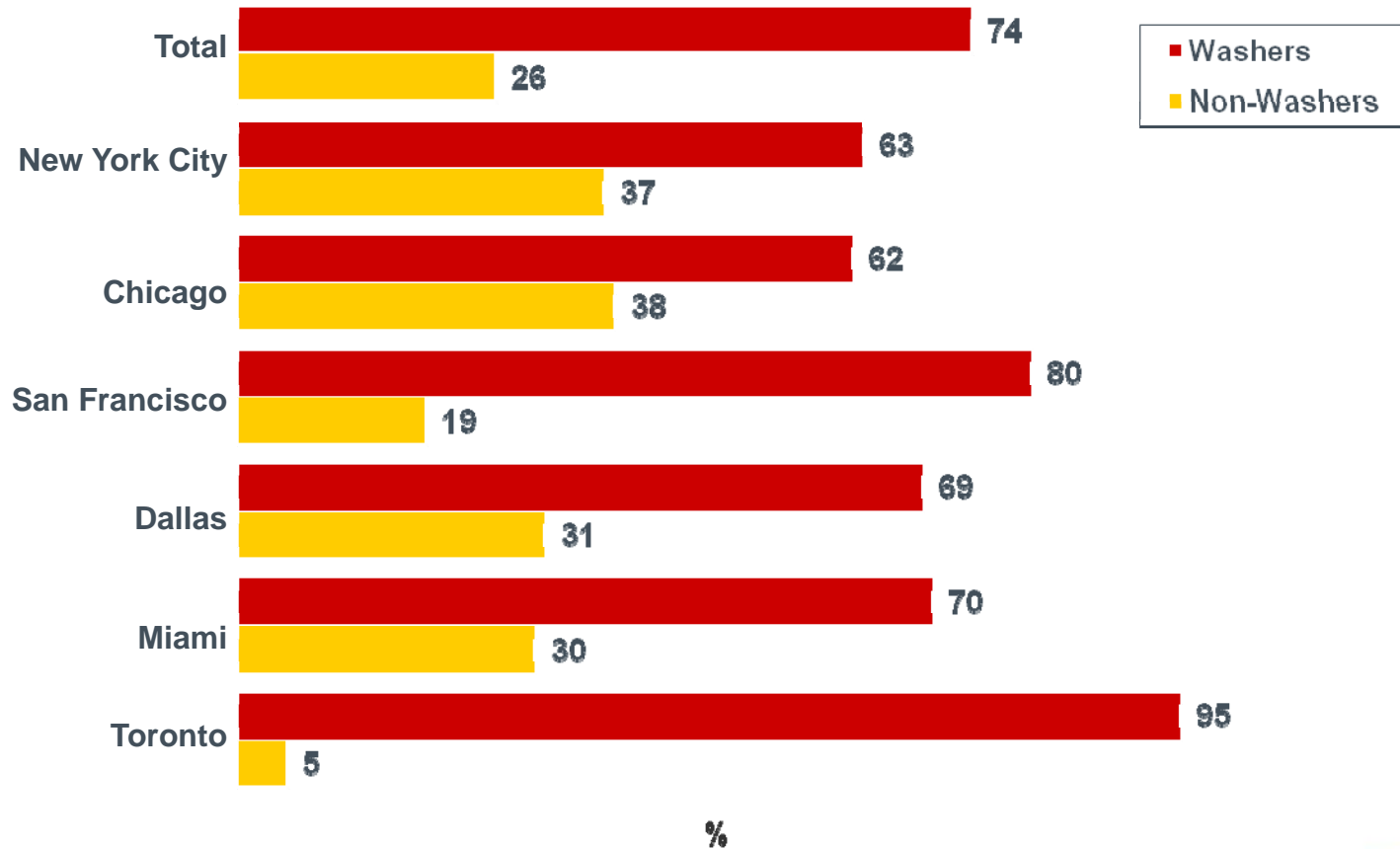
– 2003 Observational Findings Among Complete Sample –



Based on the observation of 7,541 individuals in public restrooms located in major airports conducted in 2003.

2003 Airport Observations

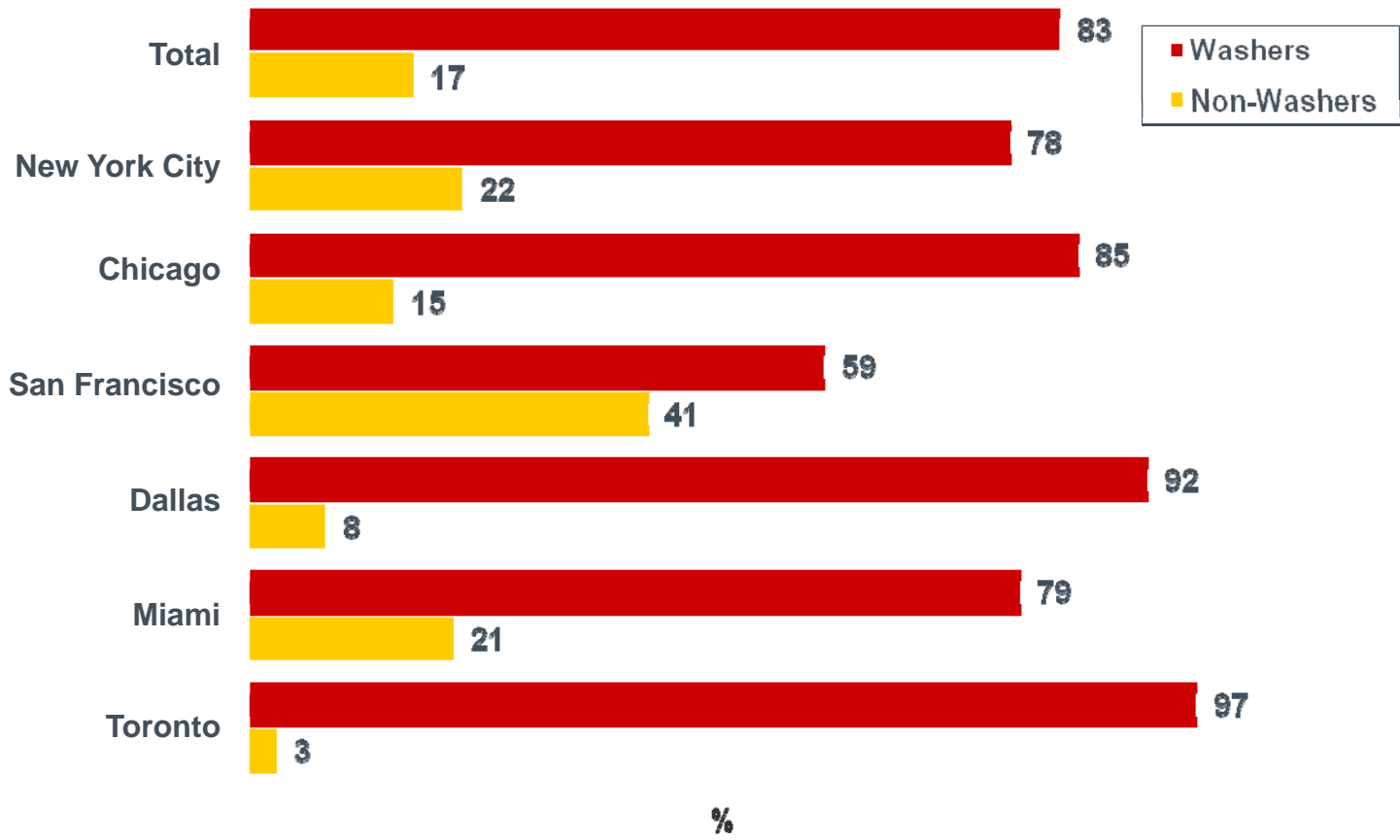
– 2003 Observational Findings Among Males –



Based on the observation of 4,046 males conducted in 2003.

2003 Airport Observations

– 2003 Observational Findings Among Females –



Based on the observation of 3,495 females conducted in 2003.