

Factors Impacting Swimming Participation and Competence

Quantitative Report

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EXECUTIVE SUMMARY

BACKGROUND

In January of 2017, USA Swimming Foundation commissioned a follow-up study with the University of Memphis concerning past research, *Constraints Impacting Minority Swimming Participation I and II*, accomplished together in 2008 and 2010. Both of the early studies were focused on learning more about limitations to swimming ability as well as to better understand perceptions of swimming held by underserved minority children. The current study objectives were to continue checking on this population's metrics involving swimming, and to better understand the broad spectrum of the United States (US) population's swimming participation and competence. It has been over 10 years since former president of USA Swimming, James Wood, urged USA Swimming to be a "voice for diversity" for the sport.¹ He specifically cited the lack of empirical data to better understand what was influencing low swim participation among underrepresented youth within metropolitan settings in the United States, possibly contributing to disproportionately high drowning rates among minority youth (particularly African American). The 2008 and 2010 studies both contributed data-based findings concerning affected groups within the US, as well as gave impetus for more research and dissemination of findings to the far-reaching global community.

Results from prior studies served as a contribution to the physical activity and aquatics safety body of knowledge providing swimming ability benchmarks and participation predictor variables as well as dispelling numerous myths associated with swim participation among marginalized youth within metropolitan settings in the United States.² These publications likewise sparked a wave of inquiry and academic debate on the topic.^{3,4} It is USA Swimming Foundation's expectation that this research and these findings will situate swimming participation and competence as commonplace or standard practice in our society. Further, these results will help provide a foundation for programming that supports the pursuit to teach every child, every person, how to be safe around water and to swim for life.

¹Wood, J. (2006 November). A voice for diversity. *Swimming World*, p. 6.

²Irwin, C.C., Irwin, R.L., Ryan, T.D., & Drayer, J. (2009). The mythology of swimming: Are myths impacting minority youth participation? *International Journal of Aquatic Research and Education.*, 3(1), 10-23.

³Irwin, C.C., Irwin, R.L., Ryan, T.D., & Drayer, J. (2011). The legacy of fear: Is fear impacting fatal and non-fatal drowning of African American children? *Journal of Black Studies*, 42(4), 561-576.

⁴Waller, S. N. & Norwood, D. M. (2009). The complexities of deconstructing the constraints to African American female participation in swimming: A rejoinder to Irwin et al., *International Journal of Aquatic Research and Education*, 3(4), 343-355.

PURPOSE OF CURRENT INVESTIGATION

The primary purpose for the current study, *Factors Impacting Swimming Participation and Competence*, was to provide further analysis of key variables which emerged from *Constraints Impacting Minority Swimming Participation I and II*, and how these variables are affecting, or not affecting, all US populations. Some of the key objectives for this study are:

- To measure youth swimming ability based on self-reported demographic/psychographic variables (includes, but not limited to- age, sex, race/ethnicity, household income-USHHS guidelines, school lunch status, swimming ability, swimming participation frequency, transportation used to access nearest pool facility, type of swim instruction) as well as predictive variables associated;
- Test the connection between the likelihood a child will learn to swim and the parent/caregiver's swimming ability; and
- Uncover motivating factors as well as constraining barriers that cause a parent/caregiver to enroll, or not enroll, their child(ren) in swim lessons.

Further analysis of the previously uncovered significant variables among all demographic characteristics was also accomplished. These variables include, but are not limited to:

1. Fear factor (swimmer and parent)
2. Parental influence/encouragement
3. Swim ability
4. Parental swimming ability
5. Personal appearance issues (includes, but not limited to how water/chemicals damage hair, eyes, nose/sinuses, ears, skin)

METHODOLOGY

Project Methodology & Instrumentation: Data collection sites were identified in collaboration with representatives from USA Swimming and comprised of five (5) urban markets – Houston, TX; Jacksonville, FL; Las Vegas, NV; Los Angeles, CA; and Memphis, TN. Within each market the research team worked with representatives from the Young Men’s Christian Association (YMCA) to identify appropriate data collection venues. The YMCA was chosen as the primary data collection source due to the organization’s access to diverse populations (swimmers and non-swimmers), keen interest in the topic under investigation, and previous assistance with the 2008 and 2010 studies. Site visits were scheduled for data collection and staff training between March and May, 2017. A mixed method approach involving quantitative (survey) and qualitative (focus group interviews) measures was used.

Quantitative measures. The quantitative research protocol included revision of the previously used survey instrument (the Swimming Inventory Survey – SIS); designing and executing data collection processes; and, data analysis and reporting procedures.

- Instrument development. A survey instrument, drawn from the previously validated 2010 questionnaire, was designed in collaboration with representatives from USA Swimming. An expert panel comprised of adolescent studies, physical activity educators, and aquatics specialists reviewed the survey instruments used to determine evidence of content/face validity.
- Subjects. By design, the YMCA representatives in each city were asked to distribute the surveys equally among their association area using income as the guiding attribute. It was requested that each YMCA association choose at least three (3) YMCA branches, one each in a high income area, middle income area, and low income area, in order to achieve an equitable pool of subjects regarding socio-economic status. Also, as was done in the earlier studies, the YMCA representatives were asked to administer the surveys to non-swimming program attendees. Adolescent respondents (12 – 18 years of age) completed the survey instrument under supervision of at least one trained researcher/YMCA staff member. The average age of adolescent respondents was 14.7 years with a Standard Deviation of 2.0, which indicated that a majority of this group’s respondents were 12.7-16.7 years old. Responses for youth 4 – 11 years of age were ascertained via surveys administered among parents and/or caregivers. The average age of very young respondents represented by a parent/caregiver was 7.5 with a Standard Deviation of 2.3, indicating a majority were between the ages of 5.2 and 9.8 years of age.

Statistical Analysis. All data were entered systematically into the Statistical Package for Social Sciences (SPSS) version 24. The data set was cleaned to ensure accurate results resulting in a usable sample of 1,180 surveys. Descriptive statistics were used to report the findings as well as inferential, multivariate statistics where appropriate and applicable.

KEY FINDINGS

The previous two studies commissioned by USA Swimming called for a targeted sample, which was comprised of low income, minority populations. According to the Centers for Disease Control and Prevention (CDC), these groups had significantly higher fatal and non-fatal drowning rates. USA Swimming Foundation charged the research team for the current study to attempt a more balanced subject pool regarding socio-economic variables (e.g., race/ethnicity, income). Therefore, the YMCA associations kept in mind this request and helped to create a large, robust, and equitable group of research participants who completed surveys and contributed during focus group interviews. The research team trusts that this third, mixed method study shows a more characteristic examination of how swimming participation and competence is experienced and achieved in various US demographic facets. As in past studies, this study exposed a number of new findings associated with variables influencing swimming ability and activity among youth and their parents. Where appropriate, significant statistical results were further informed and confirmed by qualitative data.

The following fundamental scale was used in this study to define inadequate, adequate, and proficient swimming competence. A similar scale was used in the 2010 study, with the only difference being the addition of the very first scale item, "I avoid getting near/in water except to bathe." This was added after receiving feedback from aquatic specialists. Inadequate or "no" swimming ability refers to the survey participant self-reporting they avoid water except when bathing or cannot swim at all (first two choices). "Low" swimming ability was classified using the third item ("Can splash around in the shallow end of a pool") through the seventh item ("Could swim a little in the deep end-face in water-can float a little"). Finally, "good" swimming competence ranged from the eighth choice ("Can swim with a true front crawl stroke-1 pool length-no stopping") through the eleventh choice ("Can swim many lengths without stopping-on a swim team or could be on a swim team").

I avoid getting near/in water except to bathe	Cannot swim at all	Can splash around-shallow end	Can put face in water-blow bubbles	Can hold head under water-5-10 sec's	Can glide a little-face in water-shallow end only	Can swim a little in the deep end-face in water-can float a little	Can swim with a true front crawl stroke-1 pool length - no stopping	Can swim-front crawl stroke- 2 or 3 pool lengths; can tread water for 5-10 minutes	Can swim 4 or more pool lengths- no stopping-know 3 or 4 different strokes	Can swim many lengths without stopping- on a swim team or could be on a swim team
-----"No"-----		-----"Low"-----				-----"Good"-----				

FINDINGS BY STUDY GOALS

The first three major goals for the study are listed below with accompanying results (some 2010 results can be found directly after the 2017 result in parentheses).

Measure youth swimming ability based on self-reported demographic/psychographic variables as well as predictive variables associated.

1. Overall, self-reported swim ability rates for entire sample, and by age and sex.
 - a. No swimming ability- 6.5% (10.2%); low swimming ability- 43.1% (51.3%); and good swimming ability- 50.6% (38.5%).
 - b. Children aged 4-11 years- 59.5% (73.1%) no/low swimming ability and 40.5% (26.9%) good swimming ability; and children aged 12-18 years- 30.5% (54%) no/low swimming ability and 69.5% (46%) good swimming ability.
 - c. Males aged 4-18 years no/low swim ability-45% (57%) and good swim ability- 55% (43%); females aged 4-18 years no/low swim ability-52.5% (64.3%) and good swim ability- 47.5% (35.7%).
2. Swim ability numbers continue to reveal socioeconomic and racial disparities, but many are improving since 2010.
 - a. Free/reduced school lunch recipients continue to report significantly less swimming ability than the no lunch program respondents.
 - i. For youth who qualified for free/reduced lunch programs, 58% (66%) self-reported no/low swim ability, with 10.7% (12%) of respondents qualifying for a free or reduced lunch program self-reported that they were not able to swim.
 - ii. Concerning youth respondents who did not qualify for a free or reduced lunch program, 44.6% (56.9%) reported no/low swim ability while 3.7% (6.7%) selected the no swimming ability items.
 - iii. Approximately 42% (49.8%) free/reduced lunch youth self-reported good swimming ability, and 55.4% (49.8%) of the youth not qualifying for free/reduced lunch designating good to proficient ability categories.
 - b. Although swimming ability is improving for all, race/ethnicity differentiation persists with White respondents self-reporting significantly higher swimming ability than Black/African American and Hispanic/Latino respondents.
 - i. Slightly less than two-thirds 64.2% (69%) of the Black/African American respondents self-reported no/low swimming competence while 45.3% (58%) of the Hispanic/Latino and 39.7 (42%) of the White respondents self-reported similar swim ability.
 - ii. Approximately 11.5% (14%) of Black/African American and 6% (7%) of Hispanic/Latino respondents self-reported that they were not able to swim. These numbers compare to 3% (6%) of White respondents who reported no swim ability.
 - iii. Good swimming ability reporting showed improvement for race/ethnicity groups: Black/African American- 35.8% (31.1%); Hispanic/Latino- 54.7% (42.2%); and White-60.3% (58.2%).
 - c. In the current study as well as in the 2010 study, Black/African American youth reported significantly less swimming ability than White and Hispanic/Latino respondents even after controlling for income.

- d. Income continues to be meaningful, albeit improving, concerning participation in organized swim lessons with a certified instructor as results showed a significant difference between free/reduced lunch and the no lunch program groups.
 - i. About 34% (17%) of free/reduced lunch respondents claimed to have received swim lessons from a qualified instructor.
 - ii. This compares to a 54% (38%) rate for no lunch program youth learning from a certified instructor.
- e. Most adolescents (82%) cited they know how to be safe around water and follow water safety rules when swimming.
- f. Affirmative response patterns were found among all respondents for I'd like to swim more (65%).
- g. Almost 87% of the respondents self-reporting no/low swim ability will visit a pool at least once this summer, while 44% will be at a pool this summer on a weekly basis.
- h. 37% of adolescents reported that riding in a car with family or friends was the most chosen mode of transportation to a pool, while 31% indicated they will get to a pool by walking, biking, or skateboarding.

Test the connection between the likelihood a child will learn to swim and the parent/caregiver's swimming ability.

1. Children are 4.3 times more likely to have good swimming ability if they have a parent/caregiver who has good swimming ability.
 - a. Approximately 45% of children (4-18 yrs) who had no/low swim ability also had a parent/caregiver with no/low swimming ability.
 - b. This compares to a significant 81% of youth who had good swim ability also had parent/caregiver with good swimming ability.
 - c. About 78% Black/African American parent/caregivers with no/low swim ability report their child has no/low swim ability; Hispanic/Latino parent no/low to child no/low is 62%; and White parent no/low swim to child no/low is 67%.
2. About 22% of parents who reported no/low swim ability indicate their child will not swim at all during the summer, which compares to only 3% of parents who report a good swimming ability.
3. Regarding the statement pertaining to parents limiting their child swimming opportunities because they are concerned about their child drowning, about 80% of parents with good swim ability disagreed with this statement which compares to about 64% of parents with no/low swim ability.
4. Educational attainment and swimming ability are significantly related for parent/caregivers. About 74% of parent/caregivers who reported good swim ability also noted a college degree or higher, which compares to 56% of no/low swim ability parent/caregivers.
5. Good parent swim ability was significantly related to if they thought a good swimming facility was nearby and easy to access as compared to parents with no/low swim ability.

Uncover factors, both motivating and constraining, that influence a parent/caregiver to enroll, or not enroll, their child in swim lessons.

Multiple regression analysis was performed on all factors to explore and determine which variables tested were the more impactful, and were predictive of child swimming ability. Significant variables are listed based on scores—from most to least significant.

1. For children all ages (4-18 years)

- a. Parental swimming ability. This variable was the most significant predicting child swimming ability. For every increase of one scale item on parental swimming ability, there was a 25% increase in child swimming ability.
 - b. Self-reported enjoyment of swimming. Getting pleasure out of swimming is significant to an enhanced swimming ability.
 - c. Knowing how to be safe around water. Understanding the safety issues when swimming is the next most influential variable for this demographic group's swimming ability.
 - d. Certified swimming instructor. In order to have more proficient swimming skills, your method of instruction is significant. Youth who indicated they learned how to swim from a certified instructor also noted a higher swimming ability.
 - e. Fear of drowning. This variable which was highly significant in the 2010 study continues to be important. The higher fear you have, the higher chance there is that you will be a no or low swimmer.
 - f. Other factors that were part of this regression model included: Friends like to swim, Race (Black/African American), Hair, and Parental Encouragement.
2. For children aged 4-11 years.
- a. Parental swimming ability. Again, this variable was the most significant which predicted swimming ability with very young children. One scale item increase on parent swimming ability lead to a 34% increase in child swim ability.
 - b. Knowing how to be safe around water. This item was a bit more important for the very young children group than the all ages calculation. Believing that swimming can be a safe activity is significantly linked to learning how to swim.
 - c. Friends like to swim. If their best friends enjoy swimming, then very young children will possess a higher level of swimming ability. The social aspect of swimming has a significant impact on the very young child's swimming ability.
 - d. Income. The more household income reported, the higher the child's swimming ability. And the opposite is true as well. The lower the child's household income, the lower the child's swimming ability.
 - e. Pool close to home. If the very young child had a pool close to where they lived, this variable was significant to their level of swimming ability.
 - f. One last variable was a part of this regression model: Certified swimming instructor.
3. For children aged 12-18 years.
- a. Parental swimming ability. Once more, this variable emerged as the most significant that influenced adolescent swimming ability. For every one scale item increase on parental swim ability, there was a 28% increase in adolescent swim ability.
 - b. Self-reported enjoyment of swimming. Adolescent swimming ability enhancement was significantly connected to enjoyment of swimming.
 - c. Fear of drowning. The concern or worry about this negative, tragic outcome from swimming is significant to adolescent swimming ability. The more fear, the less swimming ability.
 - d. Certified swimming instructor. If adolescents had learned how to swim from a certified swimming instructor, their level of swimming ability was impacted in a positive manner.
 - e. One last variable to load on this regression model: Friends like to swim.

RESPONDENT PROFILE

A complete profile of the respondents can be found below.

Respondent sex	<u>4-11 yr olds¹</u>	<u>12-18 yr. olds</u>	<u>Total</u>
Male	44.2%	44.1%	44.2%
Female	55.8%	55.9%	55.8%

Respondent race			
White	42.5%	22.9%	35.1%
African American/Black	27.7%	40.0%	32.3%
Asian/Asian American	4.5%	5.3%	4.8%
Hispanic/Latino	11.6%	16.2%	13.3%
American Indian & Alaska Native	1.8%	1.6%	1.7%
Native Hawaiian & Other Pacific Islander	1.8%	2.3%	2.0%
Multiple races	6.5%	9.9%	7.8%
Other	3.6%	1.8%	3.0%

Respondent school lunch program			
I am on a free lunch program	25.3%	39.3%	30.5%
I am on a reduced cost lunch program	5.0%	8.4%	6.3%
I do not receive free or reduced lunches	63.4%	38.1%	53.9%
I do not know if I am on any free/reduced lunch program	6.3%	14.2%	9.3%

¹ Parents/caregivers responded on behalf of children less than 12 years of age.

	<u>4-11 yr olds²</u>	<u>12-18 yr. olds</u>	<u>Total</u>
Respondent annual household income (parent responses only)			
Less than \$20,000	5.9%	-	5.9%
\$20,000 - \$29,999	5.9%	-	5.9%
\$30,000 - \$39,999	9.6%	-	9.6%
\$40,000 - \$49,999	9.2%	-	9.2%
\$50,000 - \$74,999	19.1%	-	19.1%
\$75,000 – \$99,999	15.0%	-	15.0%
\$100,000 or more	22.8%	-	22.8%
Would rather not say	12.3%	-	12.3%
Parent/caregiver highest level of education			
Some elementary/middle school	1.3%	23.7%	9.4%
Some high school/did not finish	0.7%	15.2%	6.0%
High School Diploma or GED	15.1%	21.0%	17.2%
College or Technical School degree	56.8%	23.5%	44.7%
Advanced college degree (Masters/Doctorate, etc.)	26.0%	16.6%	22.6%
Unknown	0.1%	0.0%	0.1%

² Parents/caregivers responded on behalf of children less than 12 years of age.

SWIMMING ABILITY AND PARTICIPATION

A large proportion of respondents (50%), self-reported a no-low swimming ability. A third of the parental/caregiver respondents self-reported similar ability (32%). Further analysis revealed that 87% of the no-low skilled swimmers frequented the pool at least once during the summer while 34% reported frequenting the pool 5+ times during the summer months.

Child's swimming ability	<u>4-11 yr olds</u> ³	<u>12-18 yr. olds</u>	<u>Total</u>
Non-swimmer ⁴	7.3%	5.1%	6.5%
Low-skilled swimmer ⁵	53.3%	25.9%	43.0%
Skilled swimmer ⁶	39.4%	69.0%	50.6%
Parent's swimming ability (see swimming ability definitions below)			
Non-swimmer	7.8%	10.0%	8.6%
Low-skilled swimmer	20.3%	27.9%	23.1%
Skilled swimmer	71.9%	62.0%	68.3%
Summer pool frequency			
0 times per month	8.0%	-	8.0%
1-2 times per month	10.9%	-	10.9%
3-4 times per month	11.9%	-	11.9%
5 or more times per month	69.2%	-	69.2%
Non-summer pool frequency			
0 times per month	44.1%	-	44.1%
1-2 times per month	21.0%	-	21.0%
	4-11 yr olds	12-18 yr. olds	Total

³ Parents/caregivers responded on behalf of children less than 12 years of age.

⁴ Self-reported Avoids water/cannot swim at all.

⁵ Self-reported swim ability categories that range from Can splash around shallow end to Can swim a little in deep end – face in water/can float a little

⁶ Self-reported swim ability categories that range from Can swim a true front crawl stroke – one pool length, no stopping to Can swim many lengths without stopping - on/could be on a swim team

3-4 times per month	11.2%	-	11.2%
5 or more times per month	23.7%	-	23.7%

Most likely means of getting to a swimming pool

Walk/Bike/Skateboard	-	34.2%	34.2%
Drive self	-	15.8%	15.8%
Ride with friend	-	11.5%	11.5%
Ride with parent/other family/caregiver	-	37.1%	37.1%
Public transportation/bus	-	1.4%	1.4%

Who taught adolescent to swim

I Do Not Know How to Swim	28.4%	11.0%	22.0%
Swim Instructor/Lifeguard	39.0%	29.6%	35.5%
Family Member	22.3%	35.0%	27.0%
Friend	2.1%	1.7%	2.0%
Taught Self	8.1%	22.7%	13.5%

SURVEY SCALE ITEMS TESTED BY LEVEL OF AGREEMENT

Statements eliciting a level of *agreement/disagreement* from the total youth sample (ages 4-18) include:

- General *agreement* (51%+ Agree or Strongly Agree)
 - Swimming is an activity that I enjoy doing
 - I could be a good swimming athlete if I was on a team
 - My best friends are good swimmers
 - My best friends like to swim
 - I know about how to be safe around water
 - Most members of my family know how to swim
 - There is a pool/swimming site close to where I live
 - My parent/caregiver encourages me to swim

- General *disagreement* (51%+ Disagree or Strongly Disagree)
 - I don't swim much because I am too involved in other activities
 - I don't swim much because swimming is too expensive
 - I am not physically fit which affects my ability to swim
 - I don't like how I look in a swimming suit
 - I worry about getting hurt while swimming
 - I don't swim much because I am so concerned about drowning
 - I don't swim much because the water/chemicals dries out/damages my skin
 - I don't swim much because the water/chemicals messes up my hair
 - I am not physically fit which affects my ability to swim

Statements eliciting a level of *agreement/disagreement* among respondents between the ages of 4 - 11 (responses provided by parents/caregivers) include⁷:

- General *agreement* with the following statements (51%> Agree or Strongly Agree)
 - Swimming is an activity that my child enjoys doing
 - My child could be a good swimming athlete if he/she were on a team
 - My child's best friends are good swimmers

- My child's best friends like to swim
 - My child knows how to be safe around water
 - Most members of my family know how to swim
 - There is a pool/swimming site close to where my child lives
 - I encourage my child to swim
 - Most members of my child's family know how to swim
 - There is a pool/swimming site close to where my child lives
- General *disagreement* with the following statements (51%+ Disagree or Strongly Disagree)
 - My child does not swim because he/she is involved in other activities
 - My child does not swim because swimming is too expensive
 - My child is not physically fit which affects his/her ability to swim
 - My child doesn't like how he or she looks in a swimsuit
 - My child worries about getting hurt while swimming
 - My child doesn't swim much because he or she is so concerned about drowning
 - My child does not swim much because how the water/chemicals dries out/damages his/her skin
 - My child does not swim much because how the water/chemicals messes up his/her hair

Statements eliciting a level of *agreement/disagreement* among respondents between the ages of 12 - 18 include:

- General *agreement* with the following statements (51%+ Agree or Strongly Agree)
 - Swimming is an activity that I enjoy doing
 - I could be a good swimming athlete if I were on a team
 - My best friends are good swimmers
 - My best friends like to swim
 - I know about how to be safe around water
 - Most members of my family know how to swim
 - I swim with members of my family
 - There is a pool/swimming site close to where I live
 - My parent/caregiver encourages me to swim
 - My parent/caregiver is a good swimmer
 - I would like to swim more than I do now
 - I swim with members of my family
 - I would swim even if my friends decided to do something else

- I would rather participate in other sports/activities than swimming
- My parent/caregiver is a good swimmer
- I would like to swim more than I do now
- I would like to improve my swimming skills
- General *disagreement* with the following statements (51%+ Disagree or Strongly Disagree)
 - I don't swim because swimming is too expensive
 - I am not physically fit which affects my ability to swim
 - I don't like how I looks in a swimsuit
 - I worry about getting hurt while swimming
 - I don't swim much because I am so concerned about drowning
 - I don't swim much because I don't like how the water/chemicals dries out/damages my skin
 - I don't swim much because how the water/chemicals messes up my hair

Statements eliciting a level of *agreement/disagreement* among parent/caregiver respondents include:

- General *agreement* with the following statements (51%+ Agree or Strongly Agree)
 - Swimming is an activity that I enjoy doing
 - I encourage my child to swim
- General *disagreement* with the following statements (51%+ Disagree or Strongly Disagree)
 - Swimming is an activity that I enjoyed as a child, but don't enjoy now as an adult
 - I am concerned that my child will get hurt while swimming
 - I am concerned that my child will drown when he/she swims
 - I don't swim myself because I am afraid of getting hurt
 - I don't swim much because I am so concerned about drowning
 - My parent/caregivers encourage me to swim when I was a child

SURVEY VARIABLES TESTED BY RESPONDENT DEMOGRAPHIC CHARACTERISTICS⁸

Analyses by Race

- Black/African American respondents reported significantly less swimming ability than Hispanic/Latino and White respondents. Hispanic/Latino swim ability was also significantly less than White, and White research participant responses indicated significantly higher swimming ability than both Black/African American and Hispanic/Latino respondents. However, all swimming ability results still showed significant improvement over reported swim ability numbers from 2010.

	Swimming Ability No/Low 2017 (2010)	Swimming Ability Good 2017 (2010)
Black/African American	64.2% (68.9%)	35.8% (31.1%)
Hispanic/Latino	45.3% (57.9%)	54.7% (42.2%)
White	39.7% (41.8%)	60.3% (58.2%)

Results based on attitudes toward swimming show a general agreement between research participants of different race/ethnicities.

- Black/African American, Hispanic/Latino, and White youth responded similarly (not significant) on:
 - I would like to improve my swimming skills
 - I would like to swim more than I do now

⁸ The data were subject to appropriate multivariate analyses to explore differences between respondent subgroups using Analysis of Variance (ANOVA) with post hoc tests. Only items achieving a .05 level of significance have been reported.

- Black/African American respondents reported significantly less agreement than both Hispanic/Latino and White respondents on:
 - Swimming is an activity that I enjoy doing
 - My best friends are good swimmers
 - I know how to be safe around water
 - I don't swim much because the water/chemicals dries out/damages my skin
 - My best friends like to swim
 - Most members of my family know how to swim
 - I can swim in deep water using a standard stroke (not dog paddle) the length of a pool
 - Frequency of summer swimming

- Black/African American and Hispanic/Latino respondents reported significantly less agreement than White respondents on:
 - My parent/caregiver encourages me to swim
 - I could be a good swimming athlete if I were on a team
 - I don't like how I look in a swimsuit
 - I am not physically fit which affects my ability to swim
 - I don't swim because I worry about getting hurt
 - I don't swim much because I am so concerned about drowning
 - There is a pool/swimming site close to where I live
 - I don't swim much because water/chemicals messes up my hair

- Hispanic/Latino respondents reported significantly less agreement than Black/African American and White respondents on:
 - I don't swim because swimming is too expensive

Analyses by Free, Reduced, and No School Lunch Program (as a consistent proxy for Household Income)*

- Free lunch and reduced lunch respondents reported significantly less swimming ability than no lunch program respondents.

	Swimming Ability No/Low 2017 (2010)	Swimming Ability Good 2017 (2010)
Free/Reduced Lunch	58% (65.6%)	42% (34.4%)
No Lunch Program	44.6% (34.2%)	55.4% (49.8%)

- Free and reduced lunch respondents and the no lunch program participants responded similarly (not significant) on:
 - I know how to be safe around water
 - I would swim even if my friends decided to do something else
- Free and reduced lunch respondents reported significantly different responses (less agreement) than no lunch program respondents on:
 - Swimming is an activity that I enjoy doing
 - I could be a successful swimming athlete if I were on a team
 - My best friends are good swimmers
 - My best friends like to swim
 - I don't swim because swimming is too expensive
 - I am not physically fit which affects my ability to swim

* Based on income for household size of 4: Free lunch = <\$31,590/Reduced lunch= \$31,591-44,955. United States Department of Agriculture (2016 March 23). Child nutrition programs: Income eligibility guidelines. *Federal Register / Vol. 81, No. 56, 15501-15504.*

- I don't like how I look in a swimsuit
 - I don't swim because I worry about getting hurt
 - I don't swim because I am so concerned about drowning
 - I don't swim much because the water/chemicals dries out/damages my skin
 - I don't swim much because the water/chemicals messes up my hair
 - There is a pool/swimming site close to where I live
 - My parents/caregivers encourage me to swim
 - Most members of my family know how to swim
 - I swim with members of my family
- No lunch program respondents reported significantly less agreement than free lunch respondents on:
 - I would like to swim more than I do now
 - I would like to improve my swimming skills

Swimming Ability by Selected Demographic Categories (2017)

	No Ability- Can't Swim	No or Low Ability*	Good Ability
All Children (4-18 yrs)	6.5%	49.4%	50.6%
Children (4-11 yrs)	7.3%	60.6%	39.4%
Adolescents (12-18 yrs)	5.1%	31.0%	69.0%
Males	6.0%	45.0%	55.0%
Females	7.0%	52.5%	47.5%
Black/Afr.Amer	11.5%	64.2%	35.8%
Hispanic/Latino	6.0%	45.3%	54.7%
White	3.0%	39.7%	60.3%
Free/Reduc. Lunch	10.7%	58.0%	42.0%
No Lunch Program	3.7%	44.6%	55.4%
Parent	8.6%	31.7%	68.3%

**This category represents both "no" and "low" ability combined*

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