We write with great appreciation for all the time you spent with us in the latest round of Wisconsin Longitudinal Study interviews. Between March 2010 and Thanksgiving day 2012, we talked with nearly 10,000 people, 60% of whom were members of the Wisconsin High School Class of 1957 and 40% were either a brother or sister of a 1957 graduate. We are just getting started analyzing the results in-depth. While we work on these studies we want to share this report we prepared especially for you, covering many of the topics from the most recent interview. Along with providing basic descriptions of your responses, we also explain how we can use the data to answer more puzzling questions about aging and health. In addition, we have included letters from a few of our many active scientists explaining how they have used the data in their own research.

In previous rounds of WLS interviews, we telephoned all the Class of 1957 graduates before we even began contacting their brothers and sisters. In this round, we interviewed all graduates and their siblings over the same time frame so we could minimize travel expenses required for face-to-face interviews. Because of this design change, we are also changing our report to you. Previously, we wrote one report for the graduate participants and a second for the brothers and sisters; now we are combining the samples and producing one report. (If you are interested in reading older reports, you can either find them online at www.wisls.org or let us know and we will mail you a printed copy.)

Before we get to the results, we want to let you know about our future goals for the WLS. We don’t know when we might be able to visit with you again, but we are applying for funding to conduct another round of interviews. In addition to these long-term plans, we also have the opportunity to contribute to research on the Human Microbiome. We hope to talk with some of you soon about participating in this new line of research.

As always, if you have any questions or comments about the WLS, we would be very happy to hear from you.

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P.S. Dr. Robert Hauser, who led the WLS since 1975, retired from the University of Wisconsin in 2010. Although you won’t see his name as frequently as before, he is still very involved in WLS research.
WAYS YOU SPEND YOUR TIME

One of the original motivations for the Wisconsin Longitudinal Study was to look at education among young people in Wisconsin. Continuing with that original purpose, we always start interviews by asking about your schooling. Most of you have not recently attended school to earn a degree, but a modest number of you are still pursuing higher education. When we talked in 2004, 11% of you told us you took at least one class since the last time we talked. By 2011, three percent of you had taken a class in the time since our last conversation.

What do you do instead of attending classes? Most of you (97%) reported you spent some time doing light physical activity in the past year. A majority of you spent some time visiting museums, attending lectures, concerts, or plays (57%); doing hobbies or crafts (51%); playing with or taking care of a pet (50%); writing letters (47%); or going out to movies (45%). Less popular activities included painting or drawing (15%) and playing a musical instrument (11%).

HOW YOU SPENT YOUR TIME IN THE LAST YEAR

- Playing a musical instrument 11%
- Painting or drawing 15%
- Doing vigorous physical activities with others 25%
- Hunting or fishing 26%
- Doing vigorous physical activities alone 42%
- Going out to movies 45%
- Writing letters 47%
- Playing with or taking care of a pet 50%
- Doing hobbies and crafts 51%
- Visiting museums or attending lectures, concerts or plays 57%
- Doing light physical activity including housework 97%

INTERNET USE

Seventy-six percent of you can connect to the internet from your home. This is a slight increase from the 67% of you who connected from home in 2004. Among those of you who spent any time online in both 2004 and 2011, 61% reported an increase in the number of minutes you spent connected to the internet, 12% reported no change, and 27% reported a decrease.

WHY WLS ASKS ABOUT INTERNET USE

You’ve probably noticed that many things people used to do in person or on the phone can now be done online. In some instances, businesses prefer, or even require, that you do things online: renting movies, paying bills, and managing health insurance. Therefore, knowing about your internet access tells researchers whether or not you can participate in these activities from home. For example, among those of you who do use the internet, 47% have looked for information about your health and 24% have communicated with your doctor’s office electronically.
FAMILY

We are observing some expected changes in marital status across time as people age and cultural norms shift. The graph on the opposite page shows that while 87% of you were married in the mid-1970s, fewer of you (72%) were married in 2011. This coincides with a change in the proportion who were widowed, one percent in 1975 and 13% in 2011.

When we talked with you most recently, we asked whether or not you were cohabiting or “living with someone in a marriage-like relationship.” Two percent of you answered “yes.” Among those who were living with a partner, half started living together some time since 2000, but a few of you have been cohabiting since the 1960s.

Looking at the data more closely, we see that 26% of you have been divorced at some time in your lives and 14% have experienced the death of a spouse. Among those who were divorced prior to age 50, 10% remarried while among those who were widowed before age 50, a slightly higher percentage (16%) remarried.

In 2011, we asked single people whether or not they dated and we found some interesting differences between men and women. Thirty-eight percent of single men and only 16% of single women were currently dating. The bottom graph on the opposite page shows that people who date are more likely to have a steady partner rather than going out on dates with more than one person.

WHY WLS RESEARCHERS ASK ABOUT MARRIAGE

The statistics reported above are interesting in themselves, but are also a critical measure for researchers. Marriage, living arrangements, and transitions into and out of unions can serve as either a strong foundation or burden (depending on the circumstances). Combining information on family composition with other measures of interest (such as health, well-being and economic circumstances, to name just a few) is important for many WLS research topics. For example, we’ve found that marriage protects people’s health as they age, but only if people are happy within those marriages.

FRIENDSHIPS

We asked you how many friends and relatives you have that you feel at ease with and can talk to about what is on your mind. Although the number of people you listed ranged from zero to two hundred, on average you reported five or six people. We asked you how frequently you got together with friends and relatives over the past four weeks; on average, you reported visiting with relatives three times and with friends four times. Finally we also wanted to know whether or not you were still in contact with any of your high school classmates. Sixty-eight percent of you kept in touch with at least one classmate after all these years.
STORIES OF HOW YOU MET

You met through a mutual friend, a cousin or a brother, a friend of your sister, a father or a mother; the friend of a good friend, your children or the neighbors, your parents knew them once before, your soon-to-be in-laws.

Singing in the church choir, at college or in high school, saved seats on the school bus, shared rides in the carpool; county fairs, milking the cows, working on the land or farm, 4H clubs, parades downtown, fighting a winter storm.

You met at taverns, supper clubs, frats and sororities, played golf, shot pool, swam at beaches, summer parties; worked in hospitals, gas stations, race tracks and root beer stands, weddings and New Years Eve, theater troupes and musical bands.

He chased her, she chased him, you knew this was the one, skating, sledding, bowling, beer bars – always lots of fun; blind date, double date, personal ads or on-line dating, love at first sight for some of you, others needed convincing.

Sweethearts since high school, first husbands or second wives, meeting once as children, reuniting in later lives; rekindled an old flame, widowed now or married twice, together now over fifty years, building dreams and sharing life.

- Laura Blakeslee, WLS Staffer
Most of you (65%) live with only your spouse or cohabiting partner, but some (21%) live alone. Eleven percent of you live with either a child or a grandchild, most often because the child or grandchild has moved into your home. Among those of you who live with a child or grandchild, 92% either fully or partly pay for the home (through ownership or rent) and eight percent (less than one percent of all WLS participants) live in homes owned or rented completely by your children or grandchildren.

Although living with adult children or grandchildren has many benefits, most of you prefer not to live with younger family members. However, this does not mean you feel they are not willing to help you should the need arise. Among the 41% of you who said you needed help from time to time, two-thirds relied on children or grandchildren for help with transportation, shopping, housework, or yard work, and three-quarters of you went to a child or grandchild for help using a computer or the internet. The majority of you also felt you could turn to a child or grandchild to help with a loan of $250 (69%), talk over a problem (65%), or assist during an illness (80%).

You also say you provide support to your children when they need it. Sixty percent of you gave $1000 or more to at least one child or grandchild, while less than two percent of you received as large a gift from a child or grandchild. For many of you, this means you are following in your parents’ footsteps: 37% received a gift of $1000 or more (not including an inheritance) from your own parents.

Although not all of you are parents, for those who are, children and grandchildren are an important part of your lives. Researchers want to learn how these important relationships influence your health and well-being later in life. Among those of you who have at least one child, 91% have grandchildren. The average number of grandchildren is six, but one percent of you have more than 20 grandchildren and a handful have 40 or more.

In some families step-children play important roles. Eight percent of you are current step-parents and another six percent are former step-parents. Although these percentages are small, researchers can use this information to study how step-parents and step-children may or may not rely on each other in later life, even if the relationship between the step-parent and biological parent ended.
The Wisconsin Longitudinal Study is the only survey in the country to collect information on a large cohort of men and women from high school all the way through the retirement years. This makes it an extremely valuable source of information for understanding how lifetimes of lived experience shape health and well-being at older ages. In collaboration with Rob Warren (at the University of Minnesota) and Andy Halpern-Manners (at Indiana University), I have been working for the past several years to better understand how to effectively summarize the vast amount of information collected on the work and family lives of WLS participants and to evaluate how the characteristics of those life histories shape various aspects of health and financial well-being at ages 64 and 71.

We have been particularly interested in understanding the extent to which WLS graduates who experienced relatively “stable” work and family lives may differ from their counterparts who experienced more transitions and less favorable work circumstances across early adulthood and mid-life. That is, do less stable work and family lives predict less favorable circumstances at older ages and, if so, why? In general, we find that the answer to this question is “yes.” More jobs, longer exposure to “bad jobs,” and multiple marriages (or no marriages) are associated with lower levels of economic well-being and health in people’s 60s and 70s. These associations exist even after taking into account other factors that are directly associated with health and economic well-being.

Thus, health and well-being at older ages depends not only on where you ended up with respect to work and family circumstances, but also how you got there.
MONEY CHOICES

You may have heard about the experiment where a child is offered a choice between one cookie provided immediately or two cookies if she was willing to wait a little while. While we did not offer you cookies, we did ask you a series of questions about whether you would like to get $10 today or get more money later. The graph on the top of the opposite page shows your preferences. The middle bar, labeled $18, shows that 78% of you would prefer to wait 30 days to receive $18 instead of getting $10 today. However, only 71% of you were willing to hold out for 60 days to get the $18. We don’t show it in the graph, but we found no differences between men and women. As you can see by the size of the bars, the more money you could earn by waiting, the more patient you were willing to be.

Along with asking about how patient you would be to get more money we also asked whether or not you would be willing to risk getting nothing at all in order to get a bigger prize. Specifically we asked whether you would like a guaranteed $11 (a 100% chance) or would you prefer to flip a coin with a 50% chance of getting more money and a 50% chance of getting nothing. The middle bar on the bottom graph, labeled $22, shows that 61% of men and 50% of women would risk the $11 in order to get a 50% chance to take home $22 instead. As the potential payoff got higher, you were more willing to risk the $11 in order to get more money. This was especially true for men.
VALUES AND ATTITUDES

Our views of society measure our personality and beliefs, which in turn, influence the decisions we make. To learn more about this, we asked whether or not you agreed or disagreed with a series of statements about the roles of men and women in society. Because men and women answered these questions quite differently, these graphs are split to show your responses separately by gender. The graphs are fairly self-explanatory, so we do not describe them using text, except for the following example. The bottom bars of the first graph shows that 28% of women but only 13% of men strongly disagreed with the statement “it is better if a man earns a living and a woman cares for the home and family.” Additionally 11% of women and 18% of men agreed with the statement. We hope you’ll find the following results as interesting as we did!
Age is an attitude, not a number!
‘Old’ gets older all the time!
Sto Lat (a traditional Polish toast meaning “May you live 100 years”)
She’s still on top of the grass!
It’s past my bedtime and it’s only 8pm!
What was the question again?
I hope I never get old.
I HOPE I get old.

Above are some of the more colorful responses you offered when asked what phrases come to mind when you think of an old person. (We thought you’d enjoy reading them, too!) Many of your responses mentioned the health challenges associated with growing old, including the physical ailments that come with age (offering words like feeble and frail) or the process of slowing down and becoming less active as one gets older. Many of you also suggested words that are associated with changes in mental health: forgetful, confused, cranky, crabby, and stubborn. Many of you thought of what an old person can’t do, such as: can’t hear, can’t drive, can’t remember, can’t play golf, can’t teach an old dog new tricks. Others thought of the appearance of age, for example, wrinkles or gray hair. Some used words that referenced the changing lifestyle that comes with age: retirement, nursing homes, and dependence on others. Nearly but not quite as often, you mentioned the positive attributes of aging: wise, experienced, and knowledgeable. Clearly, age has both its challenges and rewards!

You may have given us more negative than positive phrases about aging because most of you consider yourself younger than your biological age. When we asked what age you felt most of the time, 85% of you felt much younger than you actually were. And when we asked whether things are better, worse, or the same as you expected as you got older, only 16% of you answered that things were worse, while 40% felt that things were better than you had expected.
When we visited we asked you about your overall health, whether you felt your health was generally excellent, very good, good, fair, or poor. In 2004, most of you (66%) felt your health was either very good or good, and almost one quarter of you (23%) reported you were in excellent health. Only one in every ten of you (11%) felt your health was either fair or poor.

How you felt about your health has changed a little between 2004 and 2011. It is not surprising that you felt somewhat less positive about your health in 2011 compared to seven years prior. In 2011, most of you (68%) still felt your health was either very good or good, and nearly one in every five of you (19%) felt your health was excellent. Again, only a small proportion of you (13%) felt your health was fair or poor.
I am a sociologist who studies the ways that adults prepare for difficult experiences in later life, such as end-of-life medical decision making. I also study the ways that families adapt to the loss of loved ones. Although these are important issues that all of us will face at some point in life, they are also topics that are very difficult to talk about! I am genuinely indebted to participants in the WLS for sharing with us very personal details about how they have grieved the loss of beloved spouses and parents, and how they make plans for things like end-of-life and nursing home care. Because of the courage and honesty of WLS participants, I am able to discover important aspects of aging that other studies have not yet uncovered.

For example, the WLS, and its companion study, Wisconsin Study of Families and Loss (WISTFL), provide us with a detailed look at who makes preparations, and why. Slightly more than half of WLS respondents have a written living will, or have legally appointed a person to serve as their health care surrogate. I have found that the vast majority of married persons named their spouse, while unmarried persons with children typically named a child as surrogate. Roughly three-quarters have discussed their future treatment preferences with family or a health care provider.

However, some members of the WLS sample are far less likely than their peers to make these preparations. Those with conflicted or strained family relationships are least likely to make end-of-life plans. However, these are precisely the people who need to articulate their preferences, so as not to let their decisions fall to family members who may have very different medical views from themselves. People who have very limited financial resources and who do not own their own homes also are least likely to make preparations for end-of-life health care. Part of the reason is that those with few financial assets may be less inclined to make a will, as they have few assets to protect. Because writing a will with one’s lawyer is often the first step toward drawing up other legal documents like living wills, those facing financial strains often do not take the critical first step toward end-of-life planning.

End-of-life planning is important, however. As results from the WISTFL show, a living will and health proxy appointment may protect family members from difficult decisions, family conflict, and guilt surrounding end-of-life decisions for a loved one.
Although not universal, most of you were happy to participate when we proposed some mental and physical activities during our last visit. These challenges generate data that are coveted by researchers interested in aging and health.

**PHYSICAL AND MENTAL ACTIVITIES**

**AVERAGE HEIGHT, WEIGHT AND WALKING SPEED**

**MEN**
- HEIGHT: 5’ 9” or 68.9 inches
- WEIGHT: 205 lbs
- TIME TO WALK 10 FEET:
  - First Measure: 2.8 seconds
  - Second Measure: 2.6 seconds

**WOMEN**
- HEIGHT: 5’ 3” or 63.2 inches
- WEIGHT: 168 lbs
- TIME TO WALK 10 FEET:
  - First Measure: 3.1 seconds
  - Second Measure: 2.8 seconds

Together, you walked 27.4 miles

**WORD RECALL:**

Number of words you immediately remembered: 39,333

Number of words you remembered in delayed recall: 24,707

**CHAIR RISE:**

Number of chair rises: 41,765 times
The Wisconsin Longitudinal Study is a truly unique data resource that allows me to ask questions that have never been asked. One new area that makes the WLS even more unique is the genetic data that has been collected through saliva donations. Coupled with information on reported birth weight and early cognition, Justin Cook (also a researcher at UW) and I have begun work examining the importance of being born with a low birth weight on later outcomes. While past research has shown large reductions in adult cognition for individuals born with low birth weight, we extend current knowledge by beginning to understand why the effects occur.

We use WLS genetic data to measure the level of genetic neuroplasticity for respondents. Neuroplasticity refers to the brain’s ability to shape, connect, reshape, and reconnect pathways and neural networks during development and following exposure to bad environments. One bad environment brains are faced with is low nutrition during development, which we measure with birth weight. The idea is to ask whether “more plastic” individuals are able to cushion the effects of low birth weight on adult cognition scores through the brain’s ability to develop in the face of challenges. Indeed, this is exactly what we find. We show evidence that respondents with genetic markers for greater neuroplasticity are unaffected by low birth weight. We see these results as an initial step towards understanding how to improve the long-term outcomes of babies born with low birth weight by figuring out why birth weight matters and how to enact policies to reduce these negative impacts. The WLS and the newly collected genetic data are crucial in helping research progress in this area.
We asked if you had any difficulty performing various common daily activities. Because these questions are used in many studies, we can compare how you answered to how people around the world answered. For this comparison, we use five measures asking whether you have any difficulty: dressing, walking across a room, bathing or showering, eating, or getting in or out of bed.

Very few of you (between two and six percent) reported having difficulty with any of these activities. Women were more likely than men to have difficulty with walking across a room, bathing or showering, and getting in or out of bed, while men were more likely than women to have difficulty dressing themselves.

We combined these questions to create one measure indicating whether you reported having any difficulty on at least one of the five tasks. Next we found this same measure in data from 22 other studies around the world. After limiting the data from those studies to include only participants who were the same ages as WLS participants, we compared the results. As shown on the opposite page, WLS participants are in the middle of the pack. Also note that WLS participants are a little better off than a nationally-representative sample of Americans. In part, this is because; compared to the national US sample, nearly all WLS participants have graduated from high school.
ADVICE FOR TODAY’S YOUTH

At the end of the survey, we asked many of you “what advice would you give to someone graduating from high school today?” Well, we got an earful!

You told us that compared to when you were in high school, education today is very important, so kids should get as much education as possible. There was general agreement that high school is not enough anymore, but beyond that, there was lots of debate about whether high school seniors would be better off going to college or to a vocational school. Many of you encouraged them to go into business or medicine, but the high cost of a four-year degree and the uncertain job market led many of you to say they should consider learning a trade (becoming a carpenter, electrician, mechanic or plumber). Other ideas included the military (Navy or Air Force), construction, and information technology - maybe even working for a few years to make money and gain some maturity before finishing school. You advised them to be patient and take time to plan where they want their life to go.

No matter the course they choose, you said they should have passion for what they do; work is not just about earning money. Pursue their dreams, find a career they love, and don’t be afraid of hard work. Contribute to society, make a positive difference in the world, and vote!

On the subject of money, you recommended they start saving early, learn how to manage their money, and to live within their means. Put some money away each month (any amount, but as much as they can!) and don’t touch it, because retirement comes sooner than they think!

Marry someone they love and don’t get married young! Stay away from cigarettes, alcohol and drugs. Develop the habit of lifelong reading (and twitter does not count!). Turn off the tech and make human contact. Choose friends carefully. Trust in God. Travel the world to learn how other people live. If they fall on hard times, pick themselves up and learn from their mistakes. Do their best at whatever they decide to do, and do not give up. Be respectful. Be responsible. Use common sense. Develop the ability to think for yourself, but listen to your mother! Eat your spinach!

Above all: be honest, love your family, keep an open mind and adapt to change.
We appreciate everything you do for the Wisconsin Longitudinal Study and treasure you more than you know.