

Appendix 3
Commissioned Paper: Randall J. Olsen

Suggestions for the Last ELS Follow-up

Randall J. Olsen
Department of Economics and
Center for Human Resource Research
Ohio State University

As one thinks of instrumentation for the ELS 2002 survey, it helps to return to first principles and think about the overall purpose and potentially unique contribution of this study, which starts with sophomores in 2002 (and hence about 16 years old) and ends in 2012—the interview in question.

What is unique about the ELS and its kin is the detail on education, especially in terms of what is going on within a particular school and the student’s classroom, and on to cover post-secondary education. Having excellent detail on secondary education has the benefit of enabling a better understanding of post-secondary education. One of the axioms of education research is that no matter when you start studying the child, you will wish you had started earlier. Few studies have the patience and determination to start at birth or before and continue on through college. Those that do, such as the Children of the NLSY, do not have the wealth of data at the school level the ELS and its peer studies do. No one study can do it all.

What is important about the ELS and other studies mounted by NCES is that they can do a far more comprehensive job of focusing on the **quality and attributes** of education, whereas other studies are forced to content themselves with less demanding measures of the quantity of education even if in some cases these other studies generating better data on the quality of the child’s background and maternal characteristics.

If the issue of school quality is central to the contribution the ELS can make, one way of approaching the design problem is to ask which sorts of questions will provide the greatest resolution on outcomes central to the school quality domain? I will nominate some questions that may help with this in points below.

The area of survey content that is perhaps in the best shape is the way the ELS looks at post-secondary education in terms of applications, acceptances, and post-secondary educational outcomes. Those issues are terribly important and play to the strength of NCES. If we stipulate

that NCES has this set of issues well in hand, we can turn to issues related to labor market outcomes and their linkage to school quality, attributes, and what the student learns in school.

- A. One area of inquiry that a coalition of countries in the EU have been pursuing is to measure the extent to which post-secondary schooling (and training) is utilized by graduates. This is an idea that has great face validity. To be sure, utilization and/or usefulness can be rather inchoate descriptors, but allowing for a variety of descriptors is what one would do if such questions were asked. Given this will be the last interview, this would be the wave where more summary concepts should be pursued. After all, this interview will not be preparing the way for an event history to follow.

Here are some sample questions that may need revision, with the line of questioning being conditioned on the highest level of education or training received.

For college graduates and beyond:

Since graduating with your (fill) degree in (fill field), have you ever worked in a job for which your degree was a necessary qualification?

If yes: Are you still working in a job for which that degree is a qualification?

If yes: How satisfied are you with the training that degree provided you in terms of preparing you for your job? (5 point satisfaction scale)

If no: Thinking of that same degree, have you ever worked in a job for which your degree may not have been a necessary qualification, but provided skills that were clearly advantageous?

If yes: Are you still working in a job for which that degree was a clear advantage?

If yes: How satisfied are you with the training that degree provided you in terms of preparing you for your job? (5 point satisfaction scale)

If no to the questions on a degree being used:

Since graduation, have you ever worked in a job for which your degree was a necessary qualification?

If no: since graduation have you ever worked in a job for which your degree provided skills that were clearly advantageous?

- B. You could also craft parallel questions that cover cases where the highest level of training revealed is vocational training, associate's degree, apprentice training, adult workforce education, Adult Basic Literacy Education, and so forth.

- C. Turning to the skills issue, if it is not already being done, combining the DOT-O*Net skill characteristics for jobs and cross-matching to area of study may be a fruitful way of generating data on the extent to which education and training match up with jobs held. In this regard, some thought should be given to what to ask about changes in jobs and/or occupations the respondent may have gone through. In the mid-20s, many young workers are starting to change occupations even as they change jobs.
- D. For students who incurred debt for their schooling, the final interview could be used to elicit how that debt is being repaid. That is, ask the R what fraction of the debt has been forgiven by one program or another, what fraction has been paid off by them or their family, and what fraction remains to be paid off.

The NELS is hardly the place to collect balance sheet data, but there a couple of quick ways to determine how the R is doing financially. Most asset accumulation takes place in the form of housing so asking whether R owns or is buying their own home is a good starting point. Getting the value of the home and the size of the mortgage are, in most cases, feasible data collection objectives. Asking the respondent if they have started a retirement fund such as an IRA, 403b, 401k, etc. should likewise be feasible, including how much they have in all such accounts. In the 20's, stopping there should be sufficiently informative. I would assign this topic a lower priority.

- E. Asking how many full-time jobs the respondent has held since the previous interview will help put a lot of the economic data in context. After all, people change jobs either because they are fired or laid off, or to improve their situation. If we want to understand how effective education has been in improving economic circumstances, we want to measure job changing behavior as this is one of the key pathways through which earnings increase.
- F. I suggest cutting the job satisfaction questions. The fact of job mobility and rates of pay tells us what we need to know. After all, people move to better opportunities. In this regard, the dropped job satisfaction questions could be replaced by questions about the first full-time job after high school (if current job is not the first, else first job after HS if not the current job). In particular, a high priority should go to collecting sufficient information to elicit the hourly rate of pay on that job (see next point). In that way, one can look at earnings growth, which is often very strong early in the career.
- G. On earnings, the sequence in the ELS is suboptimal. I suggest using the protocol in the NLS. We start by asking the respondent:

[Now we would like to ask you a few questions concerning your earnings at (name of employer)]
 [(READ IF NECESSARY FOR TEACHERS): Please report your earnings (over the number of months that you were (contracted for/paid)./as you were paid over a (9/10) month period).]

For [(this job/current assignment or on-call job/business)] with [(employer name)]([QES-LOOP1 counter]), what is the easiest way for you to report your total earnings before taxes or other deductions: hourly, weekly, annually, or on some other basis?

(READ IF NECESSARY:) We use this information to compare the amount that people earn in different types of jobs.

2627	1 per hour
33	2 per day
425	3 per week
349	4 bi-weekly (every 2 weeks)
43	8 bi-monthly (twice a month)
227	5 per month
1977	6 per year
52	7 other (SPECIFY)

5733	

Even though you told me it is easier to report your earnings [time unit text for rate of pay]([QES-LOOP1 counter]), [are/were] you paid at an hourly rate on [(this job/current assignment or on-call job/business)] with [(employer name)]([QES-LOOP1 counter])?

1158	1	Yes (Go To T13750.00)
1846	0	No

3004		

(note: some intermediate checks and skips not shown)

This approach maximizes the frequency with which we receive an hourly rate of pay from the respondent, which attenuates measurement error problems that arise when the time unit of rate of pay is other than hourly and one must use reported hours to calculate the hourly rate of pay. This is important as hourly rate of pay is a workhorse variable of labor market analysis.

- H. I would carefully consider removing the questions on smoking and health insurance. Seemingly everyone asks these questions, so the issue here is why the ELS data makes a contribution to understanding these issues as opposed to some other survey (actually, it is probably more accurate to say any other survey as the questions are ubiquitous). These questions are not harmful, but dropping them will create space to questions more tightly linked to the efficacy of the educational system and how education relates to career development. Elsewhere in this memo I give a list of questions for consideration, pretty much all of which would make more sense for inclusion than questions on smoking and health insurance.

In the event health-related questions are desired in the ELS, I would suggest a different set of questions. Specifically, I recommend including a 7-item CES-D. According to the Partnership for Workplace Mental Health, mental illness causes more days of work loss and work impairment than chronic health conditions such as diabetes, asthma, arthritis, back pain, hypertension, and heart disease. Depression is likely the largest contributor to mental illness. To be sure, the estimate of the importance on mental health comes from an advocacy group, and may need verification and depression is a significant co-morbidity with other non-mental health conditions such as diabetes and heart disease. Nonetheless, depression is surely one of the more serious factors impairing workers. The CES-D is often criticized for the relatively short reference period it uses for depressive symptomology, but in work currently underway, I use item response theory to analyze CES-D results over a decade for several thousand women and find less than half the variance in the latent depressivity score is due to randomness specific to the respondent at the time of the interview. The rest of the variance is explained by either a time-invariant fixed effect or an autoregressive error component with a very high serial correlation.

The implication of this stability in underlying depressivity is that a single measure taken with the CES-D has reasonable power to detect a serious and persisting health problem that affects education and efficiency in the workforce.

- I. Education often fulfills two roles: providing additional skills to a person and also providing the skills needed to acquire additional skills. On the job training is an important way of acquiring skills and this can come either in the form of formal training programs or in the form of learning on the job. There is a series of questions in the 1993 NLSY79 that deal with on-the-job learning, including how long it took the respondent to feel comfortable at his/her job.

An alternative to these is to consider some of the questions appearing in the core Reflex instrument, which alluded to above in A and B, which has been widely administered as a paper and pencil self-interview across Europe and elsewhere. I have attached that instrument.

Questions that could be included in a CATI interview (assuming they have not already been asked) are: A6, A7, A9, C3, C4, C5, D1–4, D7–13, E1–7, F1–15, G13–21.

The questions in H1 and H2 are quite different from what we see in the US. They are intriguing questions, but before putting them in the NELS, a pilot data collection effort might be the place to start. For example, making contact with 5–10 diverse universities interested in follow-up with their graduates might lead to such a pilot whose results could be analyzed to assess the utility of moving in this direction in the future. A collaborative effort with the NSF baccalaureate survey might be mutually beneficial as a way of assessing some of the more qualitative aspects of education.

If these questions are appealing and the Department of Education is interested in comparative analysis between the US and the rest of the world using these questions, I can provide a lead.

Appendix 4
Commissioned Paper: Michael Shanahan

To: Steven J. Ingels
Re: Education Longitudinal Study, (Third Follow-up, 2012)
From: Michael J. Shanahan, mjshan@unc.edu
Date: June 3, 2010

Purpose: The purpose of this memo is to discuss measures of adult transition markers and related measures for possible inclusion in the Third Follow-up of the Education Longitudinal Study (ELS).

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Scope and Procedures

Scope: Possibly relevant measures may be classified into four broad categories. First, the traditional demographic markers of adulthood (school completion, marriage, parenthood, start of first job for pay in career-line, establishment of one's own household). Second, subjective aspects of these markers, including, for example, self-perceived adulthood, future plans, and perceived reasons for one's pathway. Third, relatively newer concerns that elucidate the transition to adulthood: intergenerational assistance, experiences with the military, and finances beyond assets, for example. Fourth and finally, Steven asked me to consider missing gaps in previous surveys.

The document is organized into Traditional Markers and Subjective Assessments and the third and fourth categories of measures are integrated into these two sections.

Procedures: The average age of the sample at the Third Follow-up will be 26 years old and the time lag since the Second Follow-up will be about six years. I have reviewed previous instruments used by the ELS, NELS88:2002 (which assessed respondents with an average age of 26), the National Longitudinal Study of Adolescent Health (Add Health) Waves III and IV (covering 18-26 and 24-32 years old, respectively), and the Youth Development Study (YDS) Waves 12 (2000) and 13 (2002) (covering ages 26 and 27). (The Panel Study of Income Dynamics and the National Longitudinal Survey are much less relevant given the years of administration and the age of the respondents.) When possible I have included frequency distributions for recommended measures as they have been used already in national probability samples.

The durations between Waves II and III and between III and IV of Add Health are both roughly 6 years. NELS88:2000 also occurred approximately 6 years after the previous wave of data collection in 1994.

Given the focus, comparable lag, and recency of these studies, Add Health III and IV and NELS88:2000 are most relevant to the present circumstances. As will be seen, the Youth Development Study has used some subjective measures that may also be of interest.

I. Traditional Demographic Markers

A life-history calendar approach represents a straightforward and highly valuable method to collect these data, providing a month-by-month account of one's roles with respect to school, work, and family living arrangements. The resulting data are quite rich and allow for different longitudinal modeling possibilities. However, this approach may not be feasible in the present case given the substantial time that has elapsed (6 years) since the last wave of data collection in 2006. (By comparison, the Youth Development, which uses the life-history calendar method, typically had one or two years between data collection points). It is unlikely that respondents could reliably and validly recall and record their work, family, and school involvements across 72 consecutive months.

A. Education

1. Add Health. Waves III (Q. Section 7) and IV (Q. Section 9) focus on educational histories—highest level attained, degrees and certificates, and the dates of these degrees and certificates.

Wave III includes detailed histories of vocational training and/or job training programs: type of institution, field of study, date of any degrees. Few people reported attending more than two such programs since the last wave.

Wave IV includes an item about help from relatives and also an item tapping the respondent's subjective assessment of educational attainment.

2. NELS88:2000. NELS draws on responses from the previous wave (1994) to then inquire about on-the-job training, several items about GEDS, specific names and dates of all schools attended, degrees and certificates received, majors or programs of study, cumulative GPA, primary reason for enrolling, reasons for leaving, future educational plans, expected degrees or certificates, recent continuing education. Pp. 15-60.

Recommendation: (R1) NELS is a superior protocol because it provides greater detail with respect to institutions attended, coursework, and performance. (R2) There is now considerable interest in familial support, so the item (H4ED7) from Wave IV of Add Health would be a potentially valuable addition. The item appears immediately below with observed frequencies. (The subjective item is discussed in section II below).

H4ED7		Num	7. In the past 12 months, have any relatives, including your parents or in-laws, helped you out by paying some of your educational expenses, such as tuition and books?
Frequency	Percent	Value	Label
14579	92.9%	0	no
959	6.1%	1	yes
159	1.0%	5	not asked on pretest
3	0.0%	6	refused
1	0.0%	8	don't know

Given the time that will have elapsed between the Second and Third Follow-Up, it may be desirable to change the question to assess the % contribution to educational expenses after high school that were received from parents or any other relatives, including in-laws and step-parents.

B. Family and Household Composition

1. Add Health. Wave III (Section 2) collects household roster and number of geographic moves; marital history and values (Section 14); completed and current pregnancies and live births (Sections 22-24). Wave IV collects marital histories, pregnancies, live births (Sections 16, 17, and 19). For current parents, there are 4 subjective assessments of the parent role (tapping happiness, with parenthood closeness to children, children as major source of stress, overwhelmed by parenthood). Both waves inquire about group quarters (current) and homelessness (ever, current).

2. NELS88:2000. NELS collects marital histories and dates, children and dates (apparently first and last only), current household composition and dependents. Pp. 60-63. There is one item on housing status (living quarters) (p. 66-67).

Recommendation: (R3) The NELS protocol to update marital history and household composition and dependents is adequate. (R4) It would be useful to determine the birth dates of all children. (R5) It would be useful to determine residential histories—where R has lived and when (see H4HR10, 11MA, and 11YA from Add Health Wave IV below) given interest in geographic mobility. (R6) It would be useful to know the type of residence occupied (see H4HR1 and 2 from Add Health Wave IV below). (R7) Collection of addresses would allow the linking of participant to their local neighborhood (a geographic area), typically a census defined area such as a census blockgroup or census tract as well as for Zone Improvement Plan code areas (better known as ZIP codes). By way of geocoding, R could then be linked to a great deal of information (including an enhanced view of R’s socioeconomic status) about the neighborhood from the Decennial Census and the American Community Survey.

**If there is another HH member, ask Q.5.
If there is NO other HH member, skip to Q.10.**

H4HR10		Num	10. Have you continuously lived in {CURRENT STATE} since {LAST INTERVIEW: 1995/1996/2001/2002}??*
Frequency	Percent	Value	Label
4691	29.9%	0	no
10996	70.0%	1	yes
4	0.0%	6	refused
10	0.1%	8	don't know

If Q.10=0, ask Q.11, else skip to next section.

Please tell me all of the states you have lived in. If you lived in the same state during two or more separate periods of time, list that state once for each period of time you lived there. If you have lived outside the US and its territories, select 'not in the US.'

H4HR11MA		Num	11MA. In what month (and year) did you move to {STATE}??
Frequency	Percent	Value	Label
438	2.8%	1	January
269	1.7%	2	February
275	1.8%	3	March
258	1.6%	4	April
360	2.3%	5	May
495	3.2%	6	June
417	2.7%	7	July
563	3.6%	8	August

372	2.4%	9	September
307	2.0%	10	October
277	1.8%	11	November
258	1.6%	12	December
64	0.4%	96	refused
10996	70.0%	97	legitimate skip
349	2.2%	98	don't know
3	0.0%	.	missing

H4HR11YA		Num	11YA. In what (month and) year did you move to {STATE}?"
Frequency	Percent	Value	Label
3	0.0%	1975	1975
42	0.3%	1976	1976
185	1.2%	1977	1977
206	1.3%	1978	1978
238	1.5%	1979	1979
197	1.3%	1980	1980
172	1.1%	1981	1981
128	0.8%	1982	1982

table continues with additional years...

these two questions are repeated until all moves accounted for

The next questions are about your current living arrangement.			
H4HR1		Num	1. Where do you live now? That is, where do you stay most often?
Frequency	Percent	Value	Label
2532	16.1%	1	your parents' home
975	6.2%	2	another person's home
11979	76.3%	3	your own place (apartment, house, trailer, etc.)
127	0.8%	4	group quarters (dormitory, barracks, group home, hospital, communal home, prison or penitentiary, etc.)
16	0.1%	5	homeless -- that is, you have no regular place to stay
68	0.4%	6	other
2	0.0%	96	refused
2	0.0%	98	don't know

<i>If Q.1=1, 2, 3, 6, skip to Q.3. If Q.1=5, 96 or 98, skip to Q. 10. If Q.1=4, ask Q.2.</i>			
H4HR2		Num	2. What kind of group quarters are you living in?
Frequency	Percent	Value	Label
17	0.1%	1	dormitory at a school
13	0.1%	3	barracks in the armed services
9	0.1%	4	half-way house, social rehabilitation facility
59	0.4%	5	prison, penitentiary
16	0.1%	6	group home
2	0.0%	7	hospital, nursing home, physical rehabilitation facility
4	0.0%	8	communal home

C. Employment and Finances

1. Add Health. Wave III (Section 8) collects start-stop dates and pay of first job, number of jobs held until current job, current job start-stop dates, wages etc., job classification, satisfaction, and military: branches, rank, start-stop dates.

Wave III (Section 15) covers finances: sources of personal income, earnings, total gross personal income, total gross household income, ownership of major assets, financial instruments, household negative financial events, extensive battery on public assistance.

Wave IV collections information about military service (Section 10): rank, branch, start-stop date, and combat experiences; this section also requests permission to access military records. Section 11 collects information about the labor market: information about first job, number of jobs to the present, current job: start-stop dates, job classification, benefits and hours, satisfaction, routinization, control(autonomy), work-family connections. Section 12 covers finances: total household and personal gross income, equity in home, total value of all assets excluding home equity, total debt excluding mortgage, total estimated household debt, negative financial events, government assistance, subjective social status.

2. NELS88: 2000 (pp. 1-16) collects current jobs, if unemployed last job and whether looking for work, with respect to current primary job: title, duties, employer, business, duties, occupation and industrial codes, how found, earnings, hours worked, satisfaction, control (or autonomy), numeracy, literacy, computers; planned job at age 30.

With respect to finances (pp. 63-66): personal annual gross income, Personal earnings, spousal earnings, personal and spousal other sources of income, personal gross annual earnings in previous 2 years and annual incomes, public assistance status and type received, health insurance and retirement program.

3. Youth Development Study. Month-by-month employment history, work values (importance of work attributes), sources of influences on career, sources of interference with career in past and future, payrate. For primary current job: how found, weekly work schedule, on-job training, control (autonomy), supervisory status, people/data/things, work stress, role overload, work involvement, coping strategies at work, relationships at work.

With respect to finances: sources that covered one's expenses; perceived financial difficulties; annual income, health insurance and retirement program.

4. Recommendations. (R8) The NELS protocol pp.1-16 and 63-66 effectively covers much essential information about jobs and finances. (R9) Data should be collected on military service—branch, rank, start-stop dates, and exposures to combat. See Section 10 of Add Health Wave IV, in Appendix A (p. 25 et seq.). (R10) An assessment of personal and household debt would supplement the NELS protocol with its emphasis on income to allow for a calculation of wealth. See possible items from Add Health, appear immediately below: H4EC5, 8, and 9. (R11) An assessment of negative financial household events and perceived financial stress supplements this relatively objective information, which is advisable since these few items cannot capture the full complexity of a household economy. See possible items from Add Health immediately below. H4EC10-15. (R12). A single item assessing financial gifts would inform studies of intergenerational transfers, which of current interest. See item below, H4EC6.

<i>If Q.4 = 1, ask Q.5, else skip to Q.6.</i>			
H4EC5		Num	5. About how much do {YOU AND/OR YOUR SPOUSE/PARTNER} you owe on the mortgage for your house, apartment, or residence? NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
566	3.6%	0	\$0
2	0.0%	3	\$3
1	0.0%	20	\$20
1	0.0%	22	\$22
1	0.0%	72	\$72
5234	33.3%	92-925000	NOTE: Range of values omitted from display
1	0.0%	950000	\$950,000

11	0.1%	999995	\$999,995
66	0.4%	9999996	refused
9423	60.0%	9999997	legitimate skip
395	2.5%	9999998	don't know

H4EC8		Num	8. Now, think about your debts besides any mortgage on your home. How much do you and others in your household owe altogether? Include all debts, including all types of loans, credit card debt, medical or legal bills, etc. (Income data are important in analyzing the health information we collect. For example, the information helps us to learn whether persons in one income group use certain types of medical care services or have conditions more or less often than those in another group.)
Frequency	Percent	Value	Label
1830	11.7%	1	less than \$1,000
2158	13.7%	2	\$1,000 to \$4,999
2178	13.9%	3	\$5,000 to \$9,999
3603	22.9%	4	\$10,000 to \$24,999
2578	16.4%	5	\$25,000 to \$49,999
1386	8.8%	6	\$50,000 to \$99,999
614	3.9%	7	\$100,000 to \$249,999
209	1.3%	8	\$250,000 or more
162	1.0%	96	refused
983	6.3%	98	don't know

H4EC9		Num	9. Suppose you and others in your household were to sell all of your major possessions (including your home), turn all of your investments and other assets into cash, and pay off all of your debts. Would you have something left over, break even, or be in debt?
Frequency	Percent	Value	Label
9118	58.1%	1	have something left over
2787	17.8%	2	break even
3197	20.4%	3	be in debt
78	0.5%	6	refused

H4EC10		Num	10. In the past 12 months, was there a time when {YOU/YOUR HOUSEHOLD} was without phone service because you didn't have enough money?
Frequency	Percent	Value	Label
14198	90.4%	0	no
1485	9.5%	1	yes
7	0.0%	6	refused
11	0.1%	8	don't know

H4EC11		Num	11. In the past 12 months, was there a time when {YOU/YOUR HOUSEHOLD} didn't pay the full amount of the rent or mortgage because you didn't have enough money?
Frequency	Percent	Value	Label
14182	90.3%	0	no
1492	9.5%	1	yes
5	0.0%	6	refused
22	0.1%	8	don't know

H4EC12		Num	12. In the past 12 months, was there a time when {YOU/YOUR HOUSEHOLD} were evicted from your house or apartment for not paying the rent or mortgage?
Frequency	Percent	Value	Label
15522	98.9%	0	no
165	1.1%	1	yes
5	0.0%	6	refused
9	0.1%	8	don't know

H4EC13		Num	13. In the past 12 months, was there a time when {YOU/YOUR HOUSEHOLD} didn't pay the full amount of a gas, electricity, or oil bill because you didn't have enough money?
Frequency	Percent	Value	Label

13353	85.0%	0	no
2323	14.8%	1	yes
4	0.0%	6	refused
21	0.1%	8	don't know

H4EC14		Num	14. In the past 12 months, was there a time when {YOU/YOUR HOUSEHOLD} had the service turned off by the gas or electric company, or the oil company wouldn't deliver, because payments were not made?
Frequency	Percent	Value	Label
14843	94.5%	0	no
844	5.4%	1	yes
5	0.0%	6	refused
9	0.1%	8	don't know

H4EC15		Num	15. In the past 12 months, was there a time when {YOU/YOUR HOUSEHOLD WERE/WAS} worried whether food would run out before you would get money to buy more?
Frequency	Percent	Value	Label
13913	88.6%	0	no
1774	11.3%	1	yes
5	0.0%	6	refused
9	0.1%	8	don't know

H4EC6		Num	6. Have {YOU/YOUR SPOUSE/PARTNER} ever received any financial gifts or loans from your parents, in-laws, or relatives to help you buy, remodel, build or furnish a home or condominium?
Frequency	Percent	Value	Label
12792	81.5%	0	no
2874	18.3%	1	yes
17	0.1%	6	refused
18	0.1%	8	don't know

II. Subjective Aspects of the Transition to Adulthood

Interest in subjective aspects of the transition to adulthood has grown considerably in the past decade. Many of these measures have not been used in national probability samples and it unclear how many of them are related to “objective” indicators of consequential behaviors and health.

However, the measures of the transition markers in NELS88:2000 could be supplemented with subjective assessments of adult transition markers that have been used in prior studies and that are the subject of scholarly interest. I would recommend the following for consideration:

A. Educational/Occupational Careers

(R13) Subjective Assessment of Educational Attainment & Occupational Career (Add Health)

H4ED8		Num	8. Which of the following best describes your desired level of education? Please listen to all options before responding.
Frequency	Percent	Value	Label
3612	23.0%	1	I have achieved my desired level of education
10615	67.6%	2	I have not achieved my desired level of education but believe that I will
1438	9.2%	3	I have not achieved my desired level of education and do not believe that I will
5	0.0%	6	refused
31	0.2%	8	don't know

H4LM27		Num	27. Which one of the following best describes your (current/most recent) primary job?
Frequency	Percent	Value	Label


6011	38.28%	1	it is part of my long-term career or work goals
4038	25.72%	2	it is preparation for my long-term career or work goals
4181	26.63%	3	it is not related to my long-term career or work goals
1207	7.69%	4	I do not have a long-term career or work goals
1	0.01%	5	pretest case, logic changed
4	0.03%	6	refused
241	1.53%	7	legitimate skip
15	0.10%	8	don't know
3	0.02%	.	missing

Continues, next page

B. Subjective Social Status

(R14) Subjective Social Status, as implemented recently by Add Health, Wave IV H4EC19. This measure is perhaps the most well-established of the measures discussed in this section and has been used extensively to study health.

H4EC19		Num	19. Think of this ladder as representing where people stand in the United States. At the top of the ladder (step 10) are the people who have the most money and education, and the most respected jobs. At the bottom of the ladder (step 1) are the people who have the least money and education, and the least respected jobs or no job.
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			 <p>Where would you place yourself on this ladder? Pick the number for the step that shows where you think you stand at this time in your life, relative to other people in the United States.</p>
Frequency	Percent	Value	Label
368	2.3%	1	step 1
679	4.3%	2	step 2
1877	12.0%	3	step 3
2777	17.7%	4	step 4
4259	27.1%	5	step 5
2627	16.7%	6	step 6
1935	12.3%	7	step 7
761	4.8%	8	step 8
195	1.2%	9	step 9
180	1.1%	10	step 10
18	0.1%	96	refused
25	0.2%	98	don't know

C. Values

(R15) Values—use Item 54 from the ELS Student Base Year Questionnaire (see below). This scale is commonly used (e.g., Youth Development Study; a subset appear in NELS88:94) and there are major modeling advantages to having the same items repeated across two measurement occasions.

54. How important is each of the following to you in your life?

(MARK ONE RESPONSE ON EACH LINE)

	Not important	Somewhat important	Very important
a. Being successful in my line of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Finding the right person to marry and having a happy family life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Having lots of money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Having strong friendships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Being able to find steady work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Helping other people in my community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Being able to give my children better opportunities than I've had	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Living close to parents and relatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Getting away from this area of the country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Working to correct social and economic inequalities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Having children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Having leisure time to enjoy my own interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Item deleted			
n. Becoming an expert in my field of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Getting a good education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

D. Obstacles in Careers

(R16). Perceived sources of obstacles in educational and occupational careers. The second follow-up of ELS (Question Stems of Instruments, p. 7) included items assessing perceived obstacles that interfered with attaining one’s educational goals. These items could be repeated for Rs who have continued their educations since the last follow-up. Additionally, similar items could be included for occupational career. The following scale appeared in the Youth Development Study and includes reference to the past and anticipated future.

D5 Since March 1999, have any of the following interfered with your work or your career plans? Are you concerned that any might interfere in the future? (Circle all that apply).

	Has interfered during the <u>past year</u>	Concerned <u>about the future</u>	Not a <u>concern</u>
Grades not high enough	a	b	c
Lack of ability to get training or degree	a	b	c
Lack of money to complete education or get started in my chosen career field	a	b	c
I am considered "overqualified"	a	b	c
Illness, accident, or disability	a	b	c
Lack of openings in my field	a	b	c
Relocation is difficult or impossible	a	b	c
Marriage	a	b	c
Children	a	b	c
Caring for a sick parent or relative	a	b	c
Discrimination against persons of my race or ethnic background	a	b	c
Discrimination against persons of my gender	a	b	c
Transportation problems – difficulty in getting to or from work	a	b	c

E. Future Circumstances

(R17). Future Circumstances. Several items will likely tap educational and career goals (see R13). The following items appear in Add Health Wave III.

What do you think are the chances that each of the following things will happen to you?

56. You will live to age 35.			H3EC56	num 2
10929	1	almost certain		
3007	2	a good chance		
1075	3	a 50-50 chance		
67	4	some chance, but probably not		
32	5	almost no chance		
2	6	This has already happened.		
10	96	refused		
51	98	don't know		
4	99	not applicable		
20	●	missing		
57. You will be divorced by age 35.			H3EC57	num 2
345	1	almost certain		
329	2	a good chance		
1437	3	a 50-50 chance		
3399	4	some chance, but probably not		
9096	5	almost no chance		
239	6	This has already happened.		

14	96	refused		
249	98	don't know		
69	99	not applicable		
20	●	missing		
<i>[If the respondent is not married, ask Q.58.]</i>				
58.	You will be married in the next 10 years.		H3EC58	num 2
4833	1	almost certain		
3721	2	a good chance		
2500	3	a 50-50 chance		
812	4	some chance, but probably not		
567	5	almost no chance		
13	6	This has already happened.		
7	96	refused		
2591	97	legitimate skip		
117	98	don't know		
16	99	not applicable		
20	●	missing		
59.	You will have a middle-class income at age 30.		H3EC59	num 2
6453	1	almost certain		
4952	2	a good chance		
2308	3	a 50-50 chance		
631	4	some chance, but probably not		
359	5	almost no chance		
348	6	This has already happened.		
6	96	refused		
107	98	don't know		
12	99	not applicable		

21	●	missing		
60.		You will have much more than a middle-class income at age 30.	H3EC60	num 2
3592	1	almost certain		
4387	2	a good chance		
4346	3	a 50-50 chance		
2041	4	some chance, but probably not		
616	5	almost no chance		
50	6	This has already happened.		
7	96	refused		
126	98	don't know		
11	99	not applicable		
21	●	missing		
61.		You will get HIV or AIDS.	H3EC61	num 2
34	1	almost certain		
27	2	a good chance		
412	3	a 50-50 chance		
1661	4	some chance, but probably not		
12879	5	almost no chance		
21	6	This has already happened.		
18	96	refused		
106	98	don't know		
19	99	not applicable		
20	●	missing		

F. Perceived Adult Status

(R18) Perceived adulthood. There is a great deal of interest in “emerging adulthood,” but there is no accepted measure and no measure that has demonstrated validity and reliability. (The major limitation appears to be that emerging adulthood is, at its core, defined in terms of role experimentation and lack of commitment, which are difficult to measure.) Item I5 immediately below, from the Youth Development Study, taps feeling like an adult.

- 15 People often feel more or less like “an adult” in different situations or areas of their lives. We would like to know more about your experience of becoming an adult. In answering the following questions, please consider how you usually feel in these situations and place an “X” in the appropriate box.

	Not at all like an adult	Somewhat like an adult	Entirely like an adult	Does not apply/ Never do this
When I am at school				
When I am at work				
When I am participating in a community organization (civic, religious, etc.)				
When I am doing active sports or exercising				
When I am involved in other recreational activities (going to a museum, concert, sports event, etc.)				
When I am with my friends				
When I am taking care of my house/apartment				
When I am with my child/children				
When I am with my parent(s)				
When I am with a romantic partner				
When I am helping a family member or other relative				
When I am helping a friend or neighbor				
When I am doing volunteer work for a church, charity, or community group				
When I pay taxes				
When I save or invest money				
When I donate money				
When I vote				
When I limit my drinking because I am driving or serving as a “designated driver”				
When I do something I know is wrong				
When I do something that might be against the law				
Most of the time				

G. Timeliness of Transition Markers

(R19) Timeliness of Transition Markers. The Youth Development also used a novel measure of perceived timing of transitions, I6 immediately below.

- 16 Some people think that the events that often occur as people enter adulthood (for example, finishing schooling, finding a full-time job) should occur at certain ages. However, people disagree about what those ages should be. Please record whether you have experienced each event listed below.
- If you HAVE experienced the event, indicate how "early," "on time," or "late" you were when you did it.
 - If you think the event WILL occur in the future, indicate how "early," "on time," or "late" you will be when it happens.
 - If you NEVER want or expect to experience the event (for example, you know that you never want to become a parent), then mark "Event Not Expected."
 - If you do not think being early, on time, or late are relevant considerations, mark "Timing Not Relevant."

Has this event happened?			Estimate of timing for each event.						
	Yes	No	Very Early	Somewhat Early	Right on Time	Somewhat Late	Very Late	Event Not Expected	Timing Not Relevant
Live with a partner or spouse									
Get married									
Own a home									
Become a parent									
Complete school									
Get a full-time job									
Become financially independent of my parents/guardians									
Start a "career"									

III. Summary of Recommendations

A. Traditional Demographic Markers

(R1) NELS88:2000 (pp. 15-60) is a superior protocol to assess educational careers because it provides greater detail with respect to institutions attended, coursework, and performance.

(R2) There is now considerable interest in familial support for educational expenses, so the item (H4ED7) from Wave IV of Add Health (Section 9) would be a potentially valuable addition.

(R3) The NELS protocol to update marital history and household composition and dependents is adequate.

(R4) It would be useful to determine the birth dates of all children.

(R5) It would be useful to determine residential histories—where R has lived and when (see H4HR10, 11MA, and 11YA from Add Health Wave IV) given interest in geographic mobility.

(R6) It would be useful to know the type of residence occupied (see H4HR1 and 2 from Add Health Wave IV below).

(R7) Collection of addresses would allow the linking of participant to their local neighborhood (a geographic area), typically a census defined area such as a census blockgroup or census tract as well as for Zone Improvement Plan code areas (better known as ZIP codes). By way of geocoding, R could then be linked to a great deal of information (including an enhanced view of R's socioeconomic status) about the neighborhood from the 2010 Decennial Census and the American Community Survey.

(R8) The NELS protocol pp.1-16 and 63-66 effectively covers much essential information about jobs and finances.

(R9) Data should be collected on military service—branch, rank, start-stop dates, and exposures to combat. See Section 10 of Add Health Wave IV, in Appendix A.

(R10) An assessment of personal and household debt would supplement the NELS protocol with its emphasis on income to allow for a calculation of wealth. See possible items from Add Health, appear immediately below: H4EC5, 8, and 9.

(R11) An assessment of negative financial household events and perceived financial stress supplements this relatively objective information, which is advisable since these few items cannot capture the full complexity of a household economy. See possible items from Add Health immediately below. H4EC10-15.

(R12) A single item assessing financial gifts would inform studies of intergenerational transfers, which of current interest. See item H4EC6.

B. Subjective Assessments for Possible Inclusion

(R13) Subjective Assessment of Educational Attainment & Occupational Career (Add Health)

(R14) Subjective Social Status, as implemented recently by Add Health, Wave IV H4EC19.

(R15) Values—use Item 54 from the ELS Student Base Year Questionnaire (see below).

(R16). Perceived sources of obstacles in educational and occupational careers. The second follow-up of ELS (Question Stems of Instruments, p. 7) included items assessing perceived obstacles that interfered with attaining one's educational goals. These items could be repeated for Rs who have continued their educations since the last follow-up. Additionally, similar items could be included for occupational career (see D5, Youth Development Study, above).

(R17). Future Circumstances. Several items will likely tap educational and career goals (see R13). Additionally, Add Health III included items gauging the subjectively assessed probability of future circumstances, H3EC56-61 (above).

(R18) Perceived adulthood, see Youth Development Study section I5 (above).

(R19) Timeliness of Transition Markers, see Youth Development Study section I6 (above).

Appendix A. Military Service Measures from Add Health

Wave IV Section 10: Military

Number of observations: 15,701

The next questions are about military service.

H4MI1 Num 1. Have you ever been in the military?

Frequency	Percent	Value	Label
14589	92.9%	0	no
1112	7.1%	1	yes

If Q.1 = 1, ask Q.2, else skip to Section 11.

H4MI2 Num 2. Was your military service in the US, outside the US, or both?

Frequency	Percent	Value	Label
511	3.3%	1	service in the US
23	0.1%	2	service outside the US
578	3.7%	3	both
14589	92.9%	7	legitimate skip

H4MI3 Num 3. Are you currently serving in the military?

Frequency	Percent	Value	Label
761	4.8%	0	no
351	2.2%	1	yes
14589	92.9%	7	legitimate skip

If Q.1 = 1 or Q.3 = 1, ask Q.4, else go to Section 11.

4. In which branches of the military have you served? You may select more than one answer.

H4MI4A Num 4A. Army

Frequency	Percent	Value	Label
2			
603	3.8%	0	not selected
508	3.2%	1	selected
14589	92.9%	7	legitimate skip
1	0.0%	8	don't know

H4MI4B Num 4B. Air Force

Frequency	Percent	Value	Label
936	6.0%	0	not selected
175	1.1%	1	selected
14589	92.9%	7	legitimate skip
1	0.0%	8	don't know

H4MI4C Num 4C. Marine Corps

Frequency	Percent	Value	Label
932	5.9%	0	not selected
179	1.1%	1	selected
14589	92.9%	7	legitimate skip
1	0.0%	8	don't know

H4MI4D Num 4D. Navy

Frequency	Percent	Value	Label
862	5.5%	0	not selected
249	1.6%	1	selected
14589	92.9%	7	legitimate skip
1	0.0%	8	don't know

H4MI4E Num 4E. Coast Guard

Frequency	Percent	Value	Label
1091	6.9%	0	not selected
3			
20	0.1%	1	selected
14589	92.9%	7	legitimate skip
1	0.0%	8	don't know

*If C_TOTMIL > 1 and Q.3 = 1, ask Q.5, else skip to Q.6.**

H4MI5 Num 5. In which branch are you currently serving?

Frequency	Percent	Value	Label
11	0.1%	1	Army
3	0.0%	2	Air Force
2	0.0%	4	Navy
15685	99.9%	7	legitimate skip

6. In which components of the military have you served? You may select more than one answer.

H4MI6A Num 6A. Active duty

Frequency	Percent	Value	Label
175	1.1%	0	not selected
935	6.0%	1	selected
14589	92.9%	7	legitimate skip
2	0.0%	8	don't know

H4MI6B Num 6B. Reserves

Frequency	Percent	Value	Label
899	5.7%	0	not selected
211	1.3%	1	selected
14589	92.9%	7	legitimate skip
2	0.0%	8	don't know

H4MI6C Num 6C. National Guard

4

Frequency	Percent	Value	Label
961	6.1%	0	not selected
149	0.9%	1	selected
14589	92.9%	7	legitimate skip
2	0.0%	8	don't know

*If C_TOTCOM > 1 and Q.3 = 1, ask Q.7, else skip to Q.8.**

H4MI7 Num 7. In which component are you currently serving?

Frequency	Percent	Value	Label
27	0.2%	1	active duty
36	0.2%	2	reserves
23	0.1%	3	National Guard
15615	99.5%	7	legitimate skip

H4MI8M Num 8M. In what month and year did your first military service begin?

[Month]

Frequency	Percent	Value	Label
87	0.6%	1	January
79	0.5%	2	February
52	0.3%	3	March
55	0.4%	4	April
91	0.6%	5	May
145	0.9%	6	June
122	0.8%	7	July
127	0.8%	8	August
119	0.8%	9	September
97	0.6%	10	October
73	0.5%	11	November
5			
52	0.3%	12	December
2	0.0%	96	refused
14589	92.9%	97	legitimate skip
11	0.1%	98	don't know

H4MI8Y Num 8Y. In what month and year did your first military service begin?

[Year]*

Frequency	Percent	Value	Label
1	0.0%	1993	1993
13	0.1%	1994	1994
85	0.5%	1995	1995
150	1.0%	1996	1996
170	1.1%	1997	1997
144	0.9%	1998	1998
146	0.9%	1999	1999
137	0.9%	2000	2000
82	0.5%	2001	2001
60	0.4%	2002	2002
43	0.3%	2003	2003
34	0.2%	2004	2004
19	0.1%	2005	2005
13	0.1%	2006	2006
6	0.0%	2007	2007
5	0.0%	2008	2008
2	0.0%	9996	refused
14589	92.9%	9997	legitimate skip
2	0.0%	9998	don't know

6

If respondent is currently serving (Q.3 = 1), skip to Q.10.

H4MI9M Num 9M. In what month and year did your most recent military service end?

[Month]

Frequency	Percent	Value	Label
59	0.4%	1	January
60	0.4%	2	February
60	0.4%	3	March
52	0.3%	4	April
48	0.3%	5	May
74	0.5%	6	June
70	0.4%	7	July
74	0.5%	8	August
80	0.5%	9	September
68	0.4%	10	October
46	0.3%	11	November
53	0.3%	12	December
2	0.0%	96	refused
14940	95.2%	97	legitimate skip
15	0.1%	98	don't know

H4MI9Y Num 9Y. In what month and year did your most recent military service end?

[Year]*

Frequency	Percent	Value	Label
1	0.0%	1994	1994
3	0.0%	1995	1995
14	0.1%	1996	1996
23	0.1%	1997	1997
36	0.2%	1998	1998
7			
70	0.4%	1999	1999
68	0.4%	2000	2000
89	0.6%	2001	2001
70	0.4%	2002	2002
80	0.5%	2003	2003
74	0.5%	2004	2004
80	0.5%	2005	2005
66	0.4%	2006	2006
65	0.4%	2007	2007
17	0.1%	2008	2008
2	0.0%	9996	refused
14940	95.2%	9997	legitimate skip
3	0.0%	9998	don't know

H4MI10 Num 10. What is the highest military rank you have achieved?

Frequency	Percent	Value	Label
61	0.4%	1	E-1
49	0.3%	2	E-2
139	0.9%	3	E-3
360	2.3%	4	E-4
293	1.9%	5	E-5
115	0.7%	6	E-6
11	0.1%	7	E-7
2	0.0%	8	E-8
13	0.1%	11	O-1
3	0.0%	12	O-1E
10	0.1%	13	O-2
8			
1	0.0%	14	O-2E
38	0.2%	15	O-3
4	0.0%	16	O-3E
2	0.0%	24	W-1
1	0.0%	25	W-2
1	0.0%	96	refused
14589	92.9%	97	legitimate skip
9	0.1%	98	don't know

If active duty is selected in Q.6, ask Q.11, else skip to next section.

H4MI11Y Num 11Y. What is the total amount of time you (have) served on active duty? [Years]*

Frequency	Percent	Value	Label
97	0.6%	0	0 years
68	0.4%	1	1 year
90	0.6%	2	2 years
119	0.8%	3	3 years
210	1.3%	4	4 years
55	0.4%	5	5 years
80	0.5%	6	6 years
47	0.3%	7	7 years
57	0.4%	8	8 years
30	0.2%	9	9 years
43	0.3%	10	10 years
18	0.1%	11	11 years
17	0.1%	12	12 years
4	0.0%	13	13 years
14766	94.0%	97	legitimate skip

9

H4MI11M Num 11M. What is the total amount of time you (have) served on active duty? [Months]*

Frequency	Percent	Value	Label
413	2.6%	0	0 months
39	0.2%	1	1 month
54	0.3%	2	2 months
44	0.3%	3	3 months
51	0.3%	4	4 months
29	0.2%	5	5 months
128	0.8%	6	6 months
29	0.2%	7	7 months
30	0.2%	8	8 months
44	0.3%	9	9 months
42	0.3%	10	10 months
32	0.2%	11	11 months
14766	94.0%	97	legitimate skip

H4MI12Y Num 12Y. What is the total amount of time you (have) served in a combat zone? [Years]*

Frequency	Percent	Value	Label
676	4.3%	0	0 years
171	1.1%	1	1 year
53	0.3%	2	2 years
24	0.2%	3	3 years
4	0.0%	4	4 years
3	0.0%	6	6 years
1	0.0%	7	7 years
1	0.0%	8	8 years
10			
1	0.0%	12	12 years
1	0.0%	15	15 years
14766	94.0%	97	legitimate skip

H4MI12M Num 12M. What is the total amount of time you (have) served in a combat zone? [Months]*

Frequency	Percent	Value	Label
621	4.0%	0	0 months
29	0.2%	1	1 month
23	0.1%	2	2 months
37	0.2%	3	3 months
29	0.2%	4	4 months
11	0.1%	5	5 months
101	0.6%	6	6 months
20	0.1%	7	7 months
27	0.2%	8	8 months
15	0.1%	9	9 months
14	0.1%	10	10 months
8	0.1%	11	11 months
14766	94.0%	97	legitimate skip

If C_TOTTIM = 0, skip to Q.17.*

The next set of questions refers to your combat deployment. If you were deployed to a combat zone more than once, think about all your combat deployments as you answer these questions.

H4MI13 Num 13. During your combat deployment, how many times did you engage the enemy in a firefight?

NOTE: Smallest 5 and largest 5 values are displayed.

Frequency	Percent	Value	Label
235	1.5%	0	0 times
32	0.2%	1	1 time
11			
27	0.2%	2	2 times
12	0.1%	3	3 times
11	0.1%	4	4 times
108	0.7%	5-500	NOTE: Range of values omitted from display
1	0.0%	666	666 times
4	0.0%	995	not asked on pretest
4	0.0%	996	refused
15262	97.2%	997	legitimate skip
5	0.0%	998	don't know

H4MI14 Num 14. During your combat deployment, did you ever kill or think you killed someone?

Frequency	Percent	Value	Label
272	1.7%	0	no
154	1.0%	1	yes
7	0.0%	6	refused
15262	97.2%	7	legitimate skip
6	0.0%	8	don't know

H4MI15 Num 15. During your combat deployment, were you wounded or injured?

Frequency	Percent	Value	Label
385	2.5%	0	no
52	0.3%	1	yes
1	0.0%	6	refused
15262	97.2%	7	legitimate skip
1	0.0%	8	don't know

16. During your combat deployment, did you see anyone wounded, killed, or dead? Select all that apply.

H4MI16A Num 16A. Yes, coalition or ally

12

Frequency	Percent	Value	Label
215	1.4%	0	not selected
220	1.4%	1	selected
3	0.0%	6	refused
15262	97.2%	7	legitimate skip
1	0.0%	8	don't know

H4MI16B Num 16B. Yes, enemy

Frequency	Percent	Value	Label
277	1.8%	0	not selected
158	1.0%	1	selected
3	0.0%	6	refused
15262	97.2%	7	legitimate skip
1	0.0%	8	don't know

H4MI16C Num 16C. Yes, civilian

Frequency	Percent	Value	Label
310	2.0%	0	not selected
125	0.8%	1	selected
3	0.0%	6	refused
15262	97.2%	7	legitimate skip
1	0.0%	8	don't know

H4MI16D Num 16D. No

Frequency	Percent	Value	Label
284	1.8%	0	not selected
151	1.0%	1	selected
3	0.0%	6	refused
13			
15262	97.2%	7	legitimate skip
1	0.0%	8	don't know

We would like to obtain information from your military service record, including information on your military education, dates and geographic locations of service, and participation in military battles and engagements. This information will help us learn more about pathways into the military and the effects of military service on family formation and health. We will not request your medical records. In order to obtain your service record we will need your Social Security number. Would you provide your Social Security number so we can request your military service record? (Your Social Security number will be treated as confidential and used only for the purpose of obtaining your military service record.)

H4MI17 Num 17. Would you provide your social security number?

Frequency	Percent	Value	Label
426	2.7%	0	no
667	4.2%	1	yes
15	0.1%	5	not asked on pretest
4	0.0%	6	refused
14589	92.9%	7	legitimate skip

***H4MI8Y**

Includes soft check if year < 1994: “Please confirm the year in which most recent military service began.”

***H4MI9Y**

Includes soft check if year < 1994: “Please confirm the year in which most recent military service ended.”

***H4MI11Y, H4MI11M**

Includes soft check if years > 18 or if years + months total to > 18: “Please confirm the total amount of time served on active duty.”

***H4MI12Y, H4MI12M**

Includes soft check if years > 18 or if C_TOTTIM > 216: “Please confirm the total amount of time served in a combat zone.”

***C_ACTIDUTY, C_TOTMIL, C_TOTCOM, C_TOTTIM**

Several variables used in the skip instructions of this and other sections were created as follows.

Variable

C_ACTIDUTY

Value is 1 if respondent is currently on active duty military service: H4MI3=yes and ((H4MI6A=Active Duty ONLY and H4MI7=blank) or (H4MI7=Active Duty))

C_TOTMIL Sum of counts of: H4MI4A, H4MI4B, H4MI4C, H4MI4D, H4MI4E

C_TOTCOM Sum of counts of: H4MI6A, H4MI6B, H4MI6C

C_TOTTIM Number of months + number of years (converted to months) in a combat zone:

H4MI12M + H4MI12Y

Appendix 5
Commissioned Items—Robert Lent

Educational Domain Variables (5) and Items (17)

Educational Self-efficacy

1. I'm confident that I can earn strong grades in my educational program
2. I'm certain that I can understand the most difficult material presented in my courses
3. I'm confident that I can do an excellent job on my educational assignments
4. I'm confident that I could complete my degree despite financial pressures
5. I'm confident that I could complete my degree despite having competing demands for my time (e.g., from work or family)

Educational Outcome Expectations

Completing my educational program will help me to ...

1. get a good job
2. get respect from people close to me (e.g., friends, family members)
3. earn enough money for the lifestyle I want to have

Educational Interests

1. I really like my educational program on the whole
2. I am enjoying the courses in my field of study
3. I get totally absorbed in what I am studying

Educational supports

1. I feel support from important people in my life for completing my educational program
2. My family members support my choice of educational program
3. I have access to a good mentor or advisor who can offer me advice and encouragement

Educational Persistence Intentions

1. I am totally convinced that I will complete my educational program
2. I think that earning a degree or certificate in my field of study is a realistic goal for me
3. I am fully committed to completing my educational program

Occupational Domain Variables (6) and Items (21)

Occupational Self-Efficacy (some items adapted from Dunn & O'Brien's, 2009, Self-Efficacy in Work Domains scale)

1. I'm confident that I can perform my job at a very high level of skill
2. I'm certain that I can solve big problems that occur at work
3. I'm confident that I can reach the goals I set for myself at work
4. I'm certain that I can do my work well despite time pressures
5. I'm confident that I can do my work well even when I need to juggle work with non-work responsibilities (e.g., in my family or community)

Occupational Outcome Expectations

Remaining at my current job will allow me to ...

1. get respect from other people
2. do work that I find satisfying
3. earn enough money for the lifestyle I want to have
4. work with other people who share my interests and values

Occupational Interests

1. I am really interested in my work
2. I often get totally absorbed in my job tasks
3. I rarely get bored when I am doing my job

Work Support

1. People at work are pretty supportive of me
2. There are people I can learn from at work
3. There are people I can turn to for help in solving a work problem

Job Satisfaction (items taken from Brayfield & Rothe's 1951 Index of Job Satisfaction)

1. I feel fairly well satisfied with my present job
2. Most days I am enthusiastic about my work.
3. I find real enjoyment in my work

Job Persistence intentions (adapted from several measures of job turnover intentions, e.g., Camman et al., 1979 – reframed items to assess persistence intentions rather than turnover intentions)

1. I plan to remain in my current job over the next year
2. I don't usually think about leaving this job
3. I feel pretty strongly committed to my current job