# WORK PREFERENCES, LIFE VALUES, AND PERSONAL VIEWS OF TOP MATH/SCIENCE GRADUATE STUDENTS AND THE PROFOUNDLY GIFTED: DEVELOPMENTAL CHANGES AND SEX DIFFERENCES DURING YOUNG <br> <br> ADULTHOOD AND PARENTHOOD <br> <br> ADULTHOOD AND PARENTHOOD <br> By 

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## TABLE OF CONTENTS

Page
ACKNOWLEDGEMENTS ..... ii
LIST OF TABLES ..... iv
LIST OF FIGURES ..... v
Chapter
I. INTRODUCTION ..... 1
Study I ..... 3
Study II ..... 3
II. STUDY I: WORK PREFERENCES OF TOP MATH/SCIENCE GRADUATE STUDENTS IN THEIR MID-20S AND 10 YEARS LATER ..... 5
Method ..... 5
Participants ..... 5
Measures ..... 5
Results ..... 6
Phase I: Men's and women's changes in priorities between age 25 and age 35, and sex differences in priorities at age 25 and age 35 ..... 6
Phase II: Differences in priorities among males and females with and without children at age 35 with a retrospective comparison ..... 10
Discussion ..... 14
III. STUDY II: LIFE VALUES, PERSONAL VIEWS, AND LIFE OUTCOMES OF TOP MATH/SCIENCE GRADUATE STUDENTS AND THE PROFOUNDLY GIFTED IN THEIR MID-30S ..... 17
Method ..... 17
Participants ..... 17
Measures ..... 17
Results ..... 18
Phase I: Sex differences in life values and personal views of graduate students in their mid- 30s, replicated with the profoundly gifted ..... 18
Phase II: Differences in life values and personal views among graduate student males and females with and without children at age 35 , replicated with the profoundly gifted ..... 21
Phase III: Life satisfaction, career satisfaction, and income of graduate student males and females with and without children at age 35 , replicated with the profoundly gifted ..... 25
Discussion ..... 27
IV. ANCILLARY AND SUPPORTIVE ANALYSES: MULTIPLE REPLICATIONS ..... 30
V. GENERAL DISCUSSION ..... 31
APPENDIX ..... 35
REFERENCES ..... 47

## LIST OF TABLES

Table Page
1a. Proportion of Graduate Student Participants Responding That Zero, One, Two, Three, or All Four of the Four Work Preferences Items Were Extremely Important, by Sex and Parenthood Status.13
1b. Proportion of Graduate Student Participants Responding That One or More, Two or More, Three or More, or All Four of the Four Work Preferences Items Were Extremely Important, by Sex and Parenthood Status.13
2. Life Satisfaction, Annual Income, and Career Satisfaction for Graduate Student (GS) and Talent Search (TS) Participants, by Sex and Parenthood Status26

## LIST OF FIGURES

Figure Page

1. Change in importance of work preferences between age 25 and age 35 by sex among math/science graduate students ..... 7
2. Sex differences in importance of work preferences at age 25 and age 35 among math/science graduate students ..... 8
3. Frequency distributions of responses to items about work preferences ..... 11
4. Sex differences in importance of life values among math/science graduate students and top 1 in 10,000 talent search participants in their mid-30s ..... 19
5. Sex differences in agreement with statements about personal views among math/science graduate students and top 1 in 10,000 talent search participants in their mid-30s ..... 20
6. Frequency distributions of responses to items about life values ..... 22
7. Frequency distributions of responses to items about personal views ..... 24

## CHAPTER I

## INTRODUCTION

Decades after the equal opportunities revolution, men still outnumber women as executives in the corporate world, as full professors in academia, and as innovators in science, technology, engineering, and mathematics (STEM), despite both exhaustive efforts to recruit women to these positions and the greater equity achieved in obtained doctorates in other areas like law, biology, and medicine (Ceci \& Williams, 2007). In light of recent calls for engagement of the creative elite (Friedman, 2005, 2007; National Academy of Sciences, National Academy of Engineering, and Institute of Medicine Committee on Prospering in the Global Economy of the 21st Century, 2006; Wooldridge, 2006), appeals for diversity of perspectives in scientific research (Fiske, 2007; Lopez, 2007), and claims that creative women with potential to rise through the ranks need female mentors and examples to follow (Holmes \& O'Connell, 2007; O'Brien, 2006), why men and women are still represented differentially in many high-achieving career areas remains an important unresolved question.

The sex difference in career outcomes becomes more understandable, however, when certain aspects of personality are taken into account. Consider individual differences variables found in traditional trait-factor approaches common to industrial/organizational and vocational psychology (Armstrong \& Rounds, 2008; Dawis, 1992; Dunnette, 1976; Dunnette \& Hough, 1991, 1992; Rounds \& Tracey, 1990). Longitudinally stable specific abilities and educational-vocational interests influence an individual's behavior in learning and work settings (Dawis, 1992; Holland, 1996; Tyler, 1974), and conceptual frameworks like the Theory of Work Adjustment (TWA; Dawis \& Lofquist, 1984; Lofquist \& Dawis, 1991) have utilized these attributes to erect theories about choice and subsequent performance in the world of work. Although there are other determinants as well (Ceci \& Williams, 2007; Lubinski \& Benbow, 2006), substantial evidence supports the idea that sex differences in ability and interest pattern contribute to the different numbers of males and females in various high-achieving careers (Browne, 2002, 2004-2005; Gottfredson, 1981, 2005; Halpern, Benbow, Geary, Gur, Hyde, \& Gernsbacher, 2007; Lubinski \& Benbow, 2006; Pinker, 2008; Rhoads, 2004). On average, women prefer fields or jobs involving working with
people, whereas males prefer fields or jobs involving working with things (Geary, 1998; 2005; Lippa, 1998, 2006). Moreover, sex differences in intellectual pattern, with females tilted toward verbal rather than mathematical/spatial abilities, and males tilted in the opposite direction, intensify these disparities (Strand, Deary, \& Smith, 2006; Hedges \& Nowell, 1995; Johnson \& Bouchard, 2007a, 2007b; Park, Lubinski, \& Benbow, 2007), even though the sexes have comparable levels of general intellectual ability (Brody, 1992; Jensen, 1998).

While sex differences in ability and interest pattern clearly play a role, other hypothesized determinants exist as well. In particular, sex differences in lifestyle preferences such as commitment to working versus commitment to spending time with family have been suggested to contribute to sex differences in occupational achievement (Browne, 2002, 2004-2005; Hakim, 2000, 2006; Pinker, 2008; Rhoads, 2004). As Gottfredson's $(1981,2005)$ theory of circumscription and compromise and Hakim's $(2000,2006)$ preference theory both stress, life priorities and pressures are dynamic. According to Gottfredson's $(1981,2005)$ theory of circumscription and compromise, self-creation is a dynamic process by which individuals first determine a set of careers that are congruent with their sex-type, prestige, and vocational interest requirements by eliminating from consideration occupations they perceive to be incompatible out of all the possible careers available in their culture (circumscription), and then adjust their aspirations from ideal to more realistic following experiences that allow them to learn more about their aptitudes, preferences, and values and their compatibility with the careers in their set of acceptable alternatives (compromise). Hakim (2000, 2006) argues that women's lifestyle preferences are heterogeneous, with women falling into one of three groups based on those preferences: home-centered $(\sim 20 \%)$, work-centered ( $\sim 20 \%$ ), and adaptive $(\sim 60 \%$; the latter denotes women who want to work outside the home, but are not totally committed to their careers); however, changing external circumstances affect the expression of these preferences, that is, whether women work full-time, work part-time, or are homemakers. The purpose of this article is to ascertain empirically whether sex differences in such preferences emerge in young adulthood among two highly talented and opportunity-advantaged samples, both after acquisition of the terminal degree (when the developmental trajectories of the sexes diverge conspicuously) and as a function of parenthood (when a multitude of priorities frequently shift).

## Study I

One way to examine whether individual differences beyond abilities and interests might factor into differential life outcomes is to study males and females with comparable specific abilities and educationalvocational interests. Although sex differences in longitudinally stable abilities and educational-vocational preferences among the general population (Browne, 2002, 2004-2005; Dawis, 2001; Geary, 1998, 2005; Gottfredson, 1981, 2005; Rhoads, 2004) and highly talented populations (Lubinski \& Benbow, 2006) are well documented, there are groups for which these sex differences are miniscule. For example, one study of top math/science graduate students in their mid-20s (Lubinski, Benbow, Shea, Eftekhari-Sanjani, \& Halvorson, 2001) found a remarkable degree of similarity in the males' and females' responses on several well-known measures: the SAT, the Graduate Record Exam, the Adjective Checklist (Gough \& Heilbrun, 1983), the Study of Values (Allport, Vernon, \& Lindzey, 1970), and the Strong Vocational Interest Inventory (Harmon, Hansen, Borgen, \& Hammer, 1994). These graduate students also displayed similar lifestyle preferences, similar amounts of time devoted to studying and research, and similar rates of participation in pre-collegiate educational opportunities awarded to them as well as those they sought out and experienced, the levels of which indicated considerable commitment to their future careers (Lubinski, Benbow, et al., 2001). Both sexes were privileged in terms of the opportunities afforded them for developing expertise in STEM, and they had the ability and interests to do so. In Study I, these participants were examined 10 years after their initial assessment as first- or second-year graduate students attending world-class math/science departments in the U.S. to determine whether sex differences in work preferences emerged after they acquired their terminal educational degrees, during a critical decade for professional development (Ericsson, 1996; Jackson \& Rushton, 1985; Murray, 2003; Simonton, 1988, 1994, 1999; Zuckerman, 1977). Any meaningful sex differences were scrutinized further as a function of parenthood.

## Study II

In Study II, a second group of participants with extraordinary potential for achievement were analyzed along with the graduate student sample utilized in Study I. This second group, a sample of profoundly gifted participants (top 1 in 10,000), identified by age 13 and tracked for 20 years, and the graduate students both completed assessments of their life values and personal views when they were in
their mid-30s. This cohort, too, experienced an opportunity-rich environment in terms of encouragement to excel academically and intellectually. Through their talent search experience and subsequent counseling, they received much encouragement based in part on objective information about their abilities and potential (Benbow, Lubinski, \& Suchy, 1996; Lubinski, Webb, Morelock, \& Benbow, 2001). I compared these assessments of the life values and personal views of these two cohorts of gifted young adults to answer the following questions: Where, if at all, do I find psychological differences at age 35 that could possibly contribute to sex differences in achievement and development and, second, do these differences vary as a function of parenthood? In addition, I examined the income levels of the participants and whether they were satisfied with their lives and careers across individual differences in views, values, and parenthood.

## CHAPTER II

## STUDY I: WORK PREFERENCES OF TOP MATH-SCIENCE GRADUATE STUDENTS IN THEIR MID-20S AND 10 YEARS LATER

To what extent did the work preferences of top math/science graduate students remain constant following their terminal educational degrees and parenthood?

## Method

## Participants

Participants for this study are drawn from Cohort 5 of the Study of Mathematically Precocious Youth (SMPY; Lubinski \& Benbow, 2006). Namely, a group of first- and second-year graduate students attending U.S. math/science departments ranked among the top 15 by Gourman (1989) and the National Research Council (1987) was surveyed in 1992 (368 males, 346 females; Lubinski, Benbow, et al., 2001) and again in 2003-2004 (275 males, 255 females; Lubinski, Benbow, Webb, \& Bleske-Rechek, 2006). Male:female ratios in the graduate programs from which they were selected often exceeded 3:1, so women were oversampled at the outset in order to achieve an approximately equal number of participants of each sex (Lubinski, Benbow, et al., 2001). At the time of the 2003-2004 survey, the mean age of the graduate student participants was 35.4 years ( $S D=1.7$ years), and approximately half (male $n=142$, female $n=$ 132) were parents ${ }^{1}$. Eighty-five percent of the graduate student participants were Caucasian, $2 \%$ were African-American, 2\% were Hispanic, and $9 \%$ were Asian. Response rates for the assessments analyzed here were $>75 \%$.

## Measures

The 1992 and 2003 surveys for these participants contained items generated by a variety of consultants with different psychological expertise (see Acknowledgement, Lubinski et al., 2006, p. 198-

[^0]199). Consultants were asked to produce items pertaining to work preferences that they thought could bear on career development. For the final survey, a subset of the compiled items was selected to minimize redundancy and maximize breadth. This set of Work Preferences items was administered to the graduate student participants in 1992 and again in 2003; they were scaled from 1 - not important to 5 - extremely important (e.g., "Traveling as part of the work I do" or "Working no more than 50 hours per week;" 37 items: Figures 1-3).

## Results

Phase I: Men's and Women's Changes in Priorities Between Age 25 and Age 35, and Sex Differences in Priorities at Age 25 and Age 35

To afford the greatest amount of descriptive flexibility and nuance (given the uniqueness of this sample, with similar numbers of each sex), I analyzed sex differences by computing standardized mean differences $(d$, Cohen, 1988) in two ways for each item:

- the age 35 mean response minus the age 25 mean response separately for males and females, indicating how item-level preferences increased or decreased in importance over the 10-year period within sex (positive values indicate increases, negative values indicate decreases; plotted in Fig. 1) and
- the male mean response minus the female mean response at each of the two time points, indicating the sex differences in the importance of item-level preferences at each time point (positive values indicate an item is more important for males than it is for females; negative values indicate an item is more important for females than it is for males; plotted in Fig. 2).

Figure 1 shows the graduate students' change in work preferences between their mid-20s and mid30s by sex. After computing the age 35-minus-age 25 standardized mean difference for each item for males and females separately, I then plotted one point for each item on Cartesian coordinates ( $\mathrm{X}=$ standardized change in mean importance for males over time, $\mathrm{Y}=$ standardized change in mean importance for females over time). To the extent that a point falls in the southwest or northeast quadrants, the importance of a
Change for
Working Monday through Friday
and having my weekends free
Working no more than 50 hr/wn
a Seeing projects through from beginning to end

| a | Seeing projects through from beginning to end |
| :--- | :--- | :--- |
| b | Holding an administrative position |
| c | The prestige of the job I have |
| d | Performing similar tasks each work day |
| e | Opportunities for promotion |
| f | Using a number of complex or high-level skills |
| g | Being left on my own to do my work |
| h | A good retirement package |
| i | The capability to contribute to decisions |
| j | A challenging job |
| k | The opportunity to learn new things on my job |
| I | Meeting people with whom I can develop friendships |
| $m$ | Freedom to do my tasks or job uninterrupted |
| $n$ | Being able to exercise leadership on my job |
| o | Having the results of my work significantly |
| affect others |  |
| p | Keeping busy on my job |
| q | Freedom from supervision |
| r | The ability to do my work well |
| s | Knowing how well I am doing on my projects |
| t | Variety in the tasks that I do |
| u | Having control over the pace of my work |
| v | Enjoying my work |
|  |  |


preference decreased or increased over time for both females and males. Points that fall in the northwest quadrant represent work preferences that increased in importance for females and decreased in importance for males. Similarly, points falling in the southeast quadrant represent work preferences that increased in importance for males over time and decreased in importance for females.

Items that manifested noteworthy changes over time are plotted as points in the figure with abbreviated versions of the items. The items in the legend, labeled "a" through "w," are those that manifested relatively little change over time. Letters on the plot correspond to the items found in the legend and their respective locations within this two-dimensional space. Needless to say, which items I chose to feature versus assign letters is somewhat arbitrary; I present the data so that readers may examine them and draw their own conclusions.

Many work preferences did not noticeably change in importance over time for either males or females, for example, receiving a good retirement package, respecting colleagues, and using complex or high-level skills at work. Several preferences did change in importance over time, however. Leadership on the job and merit-based pay increased in importance for both males and females, and satisfaction with work, enjoyment of work, and friendships at work all decreased in importance between age 25 and age 35 . Also of note, the importance of flexible work schedules and limited work hours increased for females but not appreciably for males. The correlation between the mean changes in the males' work preferences and the mean changes in the females' work preferences (Pearson $r=.67$, Spearman $\rho=.63$ ) indicates the extent to which their shifts in preferences from age 25 to age 35 were similar. (Means, standard deviations, and confidence intervals for the effect sizes plotted in Fig. 1 and 2 are available in the Appendix, Tables A3 and A4.)

Figure 2 shows the sex differences among the graduate students in various work preferences and the temporal trajectories of these sex differences. I computed the male-minus-female standardized mean difference for each item at each time point, and then plotted one point for each item on Cartesian coordinates $(\mathrm{X}=$ time 1 , age $25 ; \mathrm{Y}=$ time 2 , age 35$)$. To the extent that each point falls in the southwest (SW) or northeast (NE) quadrant, the direction of the effect was replicated (viz., $\mathrm{SW}=\mathrm{F}>\mathrm{M}$ at both time points, $\mathrm{NE}=\mathrm{M}>\mathrm{F}$ at both time points). To the extent that each point falls on an imaginary $45^{\circ}$ line
running through the origin, the magnitude of the effect was stable over time. Items about work preferences that manifested noteworthy sex differences at one or both time points are plotted, as in Figure 1, with abbreviated item descriptors. Items plotted as letters manifested relatively little difference between the sexes at both time points and correspond to the items found in the legend.

The large number of items in the legend indicates that the sexes were similar on a variety of workrelated preferences: they placed commensurate value on having their work significantly affect the lives of other people, on a challenging job, and on opportunities to learn new things. The plot shows that there were also some moderate sex differences at both time points: males placed greater value on salary, taking risks at work, and the prestige of the organization, whereas females, relative to males, placed greater emphasis on being satisfied with the work they do, respecting coworkers, and clean working conditions. There was, in addition, a noteworthy increase in sex differences over time for flexibility in work schedule, for limiting the amount of time devoted to work, and for being free on weekends: by their mid-30s, females placed greater emphasis on these aspects of work than males did, and these sex differences were negligible or nonexistent 10 years earlier. This result corresponds with those from Fig. 1. For some items, the males and females responded very similarly at age 25 , but their responses diverged somewhat 10 years later; the extent to which the correlation between the age $25 d$ s and the age $35 d \mathrm{~s}$ does not achieve unity (Pearson $r=.56$, Spearman $\rho=.57$ ) reflects this shift in the participants' priorities over this decade.

Phase II: Differences in Priorities Among Males and Females With and Without Children at Age 35 With a Retrospective Comparison

In addition, I considered how the patterns for a subset of these items changed as a function of parenthood (Fig. 3). In order to present the clearest picture of the trends underlying Figures 1 and 2, first I separated the participants into four groups based on their 2003-2004 survey responses: males and females who reported having children at that time, and males and females who reported having no children at that time, and then, for this time point, and for the one ten years earlier, I plotted frequency distributions of these four groups' responses to a subset of Work Preferences items that revealed salient differences at age 35. These items, working Monday through Friday and having weekends free, flexibility in work schedule, working no more than 50 hours per week, and working no more than 60 hours per week, not only became



more important for females and stayed the same or decreased in importance for males from time 1 to time 2, but also were among the items showing the largest sex differences at time 2. I present these distributions this way to show the participants' responses before and after the parent groups had children. In addition, I computed the standardized mean difference four ways for each item:

- the mean response of males with children minus the mean response of males without children (i.e., $\hat{M}-M$ : positive values indicate an item is more important for males with children than it is for males without children; negative values indicate an item is more important for males without children than it is for males with children),
- the mean response of females with children minus the mean response of females without children (i.e., $\hat{F}-F$ : positive values indicate an item is more important for females with children than it is for females without children; negative values indicate an item is more important for females without children than it is for females with children),
- the mean response of males with children minus the mean response of females with children (i.e., $\hat{M}-\hat{F}$ : positive values indicate an item is more important for males than it is for females; negative values indicate an item is more important for females than it is for males), and
- the mean response of males without children minus the mean response of females without children (i.e., $M-F$ : positive values indicate an item is more important for males than it is for females; negative values indicate an item is more important for females than it is for males).

Although the differences between groups were small in the participants' mid-20s (Fig. 3, left column), the females with children rated these items more important in their mid-30s than the rest of the participants did (Fig. 3, right column). In their mid-30s, the responses of the male and female parents were most divergent, and those of the males with and without children were least divergent. That more than $50 \%$ of the females with children rated working fewer than 50 or 60 hours per week "extremely important" in their mid-30s is particularly striking, especially when they are compared with the other groups - fewer than $20 \%$ of the remaining three groups rated working fewer than 50 hours per week "extremely important." The
proportions of people responding "extremely important" for one or more, two or more, three or more, or all four items are presented in Table 1. While females with and without children were more likely to rate these items "extremely important" than their male counterparts, again women with children stood out: two-thirds of these women rated at least one of these four items "extremely important", and $13 \%$ rated all four of these items "extremely important"; in contrast, less than half of the participants in the other groups rated at least one item "extremely important", and less than $4 \%$ of the participants in the other groups considered all four items to be so. The diagonal values in Table 1 b are presented in bold to highlight the likelihood of endorsing extreme positions on these items as a function of sex and parenthood.

Table 1a: Proportion of graduate student participants responding that zero, one, two, three, or all four of the four work preferences items were extremely important, by sex and parenthood status

|  | $\%$ of group |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: |
| Number of items rated extremely important | Males |  | Females |  |  |
|  | Without kids | With kids | Without kids | With kids |  |
|  | 0 | $65 \%$ | $58 \%$ | $52 \%$ | $32 \%$ |

Note. Items included working Monday through Friday and having weekends free, flexibility in work schedule, working no more than 50 hours per week, and working no more than 60 hours per week.

Table 1b: Proportion of graduate student participants responding that one or more, two or more, three or more, or all four of the four work preferences items were extremely important, by sex and parenthood status

|  | Cumulative \% of group |  |  |  |
| ---: | :---: | :---: | :---: | :---: |
| Number of items rated extremely important | Males |  | Females |  |
|  | Without kids | With kids | Without kids | With kids |
| 1 or more | $35 \%$ | $42 \%$ | $48 \%$ | $\mathbf{6 8 \%}$ |
| 2 or more | $13 \%$ | $21 \%$ | $\mathbf{2 6 \%}$ | $55 \%$ |
| 3 or more | $5 \%$ | $\mathbf{1 0 \%}$ | $14 \%$ | $32 \%$ |

Note. Items included working Monday through Friday and having weekends free, flexibility in work schedule, working no more than 50 hours per week, and working no more than 60 hours per week.

## Discussion

It is important to discuss these findings in the context of what is already known about this sample (Lubinski et al., 2006; Lubinski, Benbow, et al., 2001; Lubinski \& Benbow, 2006). For example, there is evidence to suggest that the selection processes implemented by the graduate schools that secured the participants in this study were effective (Lubinski, Benbow, et al., 2001): these top math/science graduate student participants had exceptional talent and passion for their fields, and during junior high and high school they had sought out opportunities to develop expertise in STEM. Moreover, this sample of males and females did not differ significantly in the proportion eventually securing tenure track positions at top U.S. universities. Hence, the graduate schools surveyed did indeed identify males and females at promise for leadership in STEM. Within this sample, however, males and females did differ significantly in the proportion of each that chose to become homemakers, $1 \%$ and $9 \%$, respectively (Lubinski et al., 2006). The latter subset and the general tendencies uncovered in this study need to be taken into account in future work on gender disparities. Additionally, because the females in this group were under-represented relative to males in these programs, these females are even more uncommon among females in general than the males in this sample are among males in general in their level of commitment to and ability to be involved in STEM.

With this background, several observations can be made from the pattern of their responses to items about work preferences. First, that the males and females consider many preferences to be similarly important, and of constant importance over time, is clear. These preferences include having the results of their work significantly affect others, using a number of complex or high-level skills in their work, being able to contribute to decision-making at work, and having freedom to do their work uninterrupted. This result might have been expected, given the similarity of the sexes in their personality and abilities in their mid-20s (Lubinski, Benbow, et al., 2001).

Second, some priorities change similarly over time for men and women. These changes seem to indicate that maturity brings a realization that work is work, so to speak, and play is play-leadership opportunities and merit-based pay become more important, while satisfaction, friendships, and enjoyment, at least in the workplace, become less so, suggesting that these aspects of life, while they may be important
outside of work, are not as important in work settings by the participants' mid-30s as they were 10 years earlier.

Third, some sex differences in work preferences remain largely stable over time, and may represent general sex differences in the desire for dominance and the desire for comfort (Browne, 2002; Dawis, 2001; Pinker, 2008; Rhoads, 2004); that is, males place more value on high salaries, taking risks (consistent with the findings of Byrnes, Miller, \& Schafer, 1999), and the prestige of their organization, whereas females place more value on satisfaction at work, respecting colleagues, and clean conditions in the workplace.

Finally, parenthood affects work preferences, especially for females: females who, 10 years earlier, before they became mothers, placed the same amount of importance on short hours and flexible schedules as everyone else did rate these things as much more important after motherhood. This phenomenon has been observed cross-culturally in normative samples (Geary, 2000), but that this change in preferences is found among even some of the most talented and passionate females in these fields adds nuance to our understanding of why men are overrepresented in high-achieving positions in STEM fields: even those women with the talent and passion to work long hours in order to succeed have individual differences coming online along with motherhood that make them want to reduce their work hours, take a leave of absence from work, or exit their careers altogether to become homemakers.

As restrained as taking a temporary leave of absence sounds, however, doing so is especially difficult in STEM fields relative to social sciences and humanities fields as a result of discipline differences in the durability of knowledge (McDowell, 1982); that is, the engineering and physical sciences have higher conceptual and technical knowledge turnover rates than the social sciences and humanities do.

Consequently, the appreciable number of women who might have succeeded in STEM fields but prefer not to delegate child rearing practices (Browne, 2002; Hakim, 2000, 2006; Rhoads, 2004) might gravitate toward fields in academia where they won't be as severely punished for taking time off to raise childrenfields and disciplines wherein not as much "catching up" is needed as in STEM. Indeed, with respect to high-level STEM positions, it is hard to catch up when one is competing with intellectual peers who work $60+$ hours per week and who have never been on leave. Returning to work is not the issue; rather, it is returning to work at the same level that is the focal issue. Furthermore, when these shifts in values co-occur
among partners who earn high incomes, acting on these changes in priorities becomes more feasible. For example, there is evidence that assortative mating among highly intelligent people has the consequence that women who would otherwise be eligible for careers in the highest echelons pull out of labor force participation at rates higher than comparable men do, because their husbands' incomes are sufficient (Becker \& Lindsay, 2004). Thus, this change in work preferences among females with the capacity to make an impact in STEM may result in more women leaving STEM than initially seems likely.

## CHAPTER III

## STUDY 2: LIFE VALUES, PERSONAL VIEWS, AND LIFE OUTCOMES OF TOP MATH-SCIENCE GRADUATE STUDENTS AND THE PROFOUNDLY GIFTED IN THEIR MID-30S

This study was an extension of the Study 1 analysis of the graduate students coupled with a replication with a sample of profoundly gifted participants. Here I examined sex differences in life priorities and values among top math/science graduate students and the profoundly gifted in their mid-30s and the extent to which some of these differences were moderated by parenthood. In addition, I considered individual differences in the participants' income and life and career satisfaction and explored the degree to which they are associated with sex and parenthood for these two highly talented and opportunityadvantaged populations.

## Method

## Participants

The graduate students from Study 1 were also participants in this study.
Talent search participants identified in the early 1980s as representing the top 1 in 10,000 in cognitive abilities (SAT-M $\geq 700$ or $S A T-V \geq 630$ by age 13) were surveyed in 2003 (Lubinski et al., 2006). The talent search participants' mean age was 33.3 years ( $S D=1.2$ years), and $94(35 \%)$ of the males and $28(33 \%)$ of the females had become parents by 2003. Sixty percent of the talent search participants were Caucasian, $1 \%$ were African-American, and $15 \%$ were Asian. Twenty-three percent did not disclose their race. Response rates for both cohorts for the assessments analyzed here were $>75 \%$.

## Measures

Life Values and Personal Views. The consultants who provided items for Study 1 simultaneously provided items on life values and personal views that they thought could be relevant to career development. Again items were selected to minimize redundancy and maximize breadth.

The sets of Life Values and Personal Views items were administered to both the graduate student and the talent search participants in 2003. Life Values items were scaled from 1 - not important to 5 extremely important (e.g., "Being politically active in my community" or "Living close to my parents," 28 items: Figures $4 \& 5$ ), and Personal Views items were scaled from 1 - strongly disagree to 5 - strongly agree (e.g., "I want to improve the human condition," and "I want to be recognized as the best in my field," 23 items: Figures 6 \& 7).

Satisfaction. I was primarily interested in participants' satisfaction with their lives and careers. I examined the participants' life satisfaction with the 5-item Satisfaction with Life Scale (Pavot \& Diener, 1993) as a function of sex and parenthood. A Levene test revealed significant between-group heterogeneity of variance in life satisfaction among the talent search participants, $F(3,331)=4.90, p<.002$. Because 2way analyses of variance (ANOVAs) often exhibit excessive Type I error rates and/or inadequate power with heterogeneous variances and unequal sample sizes (Maxwell \& Delaney, 2004), I performed a generalized Welch approximate degrees of freedom (ADF; Lix \& Keselman, 1995) test to assess group differences among the talent search participants on this measure. ADF tests do not assume equality of population variances across groups, and their Type I error rates and power are generally better than those of ANOVAs under heterogeneity of variance (Lix \& Keselman, 1995). Career satisfaction was scaled from 1 - very dissatisfied to 7 - very satisfied.

## Results

Phase I: Sex Differences in Life Values and Personal Views of Graduate Students in Their Mid-30s, Replicated with the Profoundly Gifted

The Life Values (Fig. 4) and Personal Views (Fig. 5) items were administered to both cohorts during their mid-30s. I calculated the male-minus-female $d$ for each item within each cohort to explore sex differences, and I also examined the extent to which the findings on these indicators among the profoundly gifted replicated those among the graduate student participants to ascertain their generalizability to a different high potential population. Figures 4 and 5 show age 35 findings from the graduate student and profoundly gifted samples and illustrate the extent to which findings from one cohort are replicated in the other. Both plots of bi-cohort (male-minus-female) effect sizes illustrate replications ( $\mathrm{X}=$ profoundly


[^1]a Iam comfortable spending long intervals of
b I persist when others give up
c I believe that the most important contribution one can make to humanity is the discovery
of scientific principles
d The possibility of discomforting others does not deter me from stating the facts
e I make a contribution to the greater good
f I have the inner strength to resist popular
pressur
g I believe that the most important contribution
one can make to humanity involves the direct
improvement of others' lives
improvement of others' lives
h I approach individuals in high
positions than my own (e.g., to ask questions
to discuss possible collaborations)
i I want to improve the human condition
j lenjoy being part of an organization where
individuals share responsibilities
k I think that people have a duty to provide for
those less fortunate than themselves
। I am a team player
m I tend to take charge and give directions
 participants in their mid-30s. For all GS $|d|>.22, p<.01$, and for all TS $|d|>.35, p<.01$.
gifted, $Y=$ graduate students): For each point that falls in either of the southwest (SW) or northeast (NE) quadrants, the direction of the effect for a single item was replicated across cohorts ( $\mathrm{SW}=\mathrm{F}>\mathrm{M}$ in both cohorts, $\mathrm{NE}=\mathrm{M}>\mathrm{F}$ in both cohorts). Further, to the extent that the point falls on an imaginary $45^{\circ}$ line running through the origin, the magnitude of the effect was also replicated.

Figure 4 arrays the bi-cohort effect sizes for the Life Values items. Again, the sexes rated a wide variety of items similarly, including finding the right person to marry, being able to give their children better opportunities than they had, and having leisure time to enjoy avocational interests. There were also some salient sex differences in ratings, however. Females from both cohorts relative to males placed more importance on part-time work and having a part-time career for a limited period of time, having strong friendships, and giving back to the community; conversely, males placed more emphasis on having a fulltime career, creating or inventing something that will have an impact, and monetary wealth. Females also rated maintaining close relationships with their parents, living close to family, and being there for family and friends as more important than males did, which further underscores the value females relative to males placed on family and relationships with friends. Moreover, there was a high amount of covariation between the $d \mathrm{~s}$ of both cohorts on these indicators (Pearson's $r=.85$, Spearman's $\rho=.80$ ).

I observed further nuance in the differences and similarities in men's and women's views (Fig. 5). Females felt more strongly than males that society has the responsibility to meet the basic needs of all of its members, and that no one goes without or gets left behind. Males, on the other hand, were distinguished in the amount of importance they placed on their ideas, being recognized as the best in their respective fields, and putting their needs above those of others. Again, the $d$ s of both cohorts covaried appreciably on these indicators (Pearson's $r=.73$, Spearman's $\rho=.73$ ). (Means, standard deviations, and confidence intervals for the effect sizes plotted in Fig. 4 and 5 are available in the Appendix, Tables A5 and A6.)

Phase II: Differences in Life Values and Personal Views Among Graduate Student Males and Females With and Without Children at Age 35, Replicated with the Profoundly Gifted

I again calculated means and $d$ s for both sexes as a function of parenthood status (Fig. $6 \& 7$ ).
Figure 6 presents dot plots of some of the responses to Life Values items by both the graduate students and


| Extremely important | Being successful in my line of work |  |
| :---: | :---: | :---: |
|  | $\hat{F} \cdot \mid$ \| $\hat{M}$ | Effect Size (d) |
| Very important |  | $\hat{\mathrm{F}}$ - F: $: 32$ |
| Important | 人 $\mathbb{H \|} \cdots \hat{F}$ | $\hat{\mathrm{M}}=\hat{\mathrm{F}}: 50$ |
| Somewhat important | $\hat{M} \mathrm{~F} \cdot \mathrm{~F}$ | M-F: 04 |
| Not important | - $\hat{W}$ |  |




Figure 6, continued



Groups $\quad \%$ of group ( $\hat{F}, F, \hat{M}, M$ ) with response




$\begin{array}{ll}\hat{F}: \text { Females with children by mid-30s } & \hat{M}: \text { Males with children by mid-30s } \\ \text { F: Females without children by mid-30s } & \text { M: Males without children by mid-30s }\end{array}$
Figure 7. Frequency distributions of responses to items about personal views. For graduate student participants, $p<.01$ for all $|d|>.33$. For talent search participants, $p<.05$ for $\hat{M}-M|d|>.23, \hat{F}-F|d|>.44, \hat{M}-\hat{F}|d|>.40, M-F|d|>.29$.
the profoundly gifted, broken down by sex and parenthood status. Again, the differences were largest between the male and female parents $(\hat{M}-\hat{F})$, particularly when it came to the importance of full- vs. part-time work. Almost $40 \%$ of women with children in both cohorts reported that having a part-time career is "important," "very important," or "extremely important," while less than $15 \%$ of males with children reported that to be true. Twenty-three percent of the graduate student females with children and $38 \%$ of the profoundly gifted females with children reported that full-time work is not important to them. In contrast, only $6 \%$ of the graduate student males (with and without children) and $15 \%$ of the profoundly gifted males agreed. Also note the responses of the females without children. In many cases, their responses were more similar to those of the males than they were to those of the females with children. Finally, the patterns of responses manifested by the graduate student cohort were replicated by the profoundly gifted group.

I broke down the patterns of responses to some Personal Views items by sex and parenthood status for the dot charts in Figure 7. The differences among the groups for these items were altogether smaller than for the items I explored in Figures 3 and 6, but again, the largest differences were between the males and females with children. Males with and without children responded similarly to almost every item presented, as did the graduate student females with and without children; however, the profoundly gifted females without children responded to three of the four items more like the males did than like the females with children did: "Society should invest in my ideas because they are more important than those of other people in my discipline," "I want to be recognized as the best in my field," and "I can relatively easily multi-task." Females with children also stood out in their responses to several items. They agreed more than the other groups that "it is important that no one goes without or gets left behind," and the profoundly gifted females with children reported more than the other groups in their cohort did that they can "easily multi-task."

Phase III: Life Satisfaction, Career Satisfaction, and Income of Graduate Student Males and Females With and Without Children at Age 35, Replicated with the Profoundly Gifted

Results of analyses on objective and subjective outcome variables are reported in Table 2. All groups were satisfied with their lives, but parents were more satisfied than childless participants were, graduate student $F(1,519)=50.32, p<.001$; talent search $F(1,287.90)=46.53, p<.001$; indeed, the
parents' scores were comparable to those of the happiest normative samples (Pavot \& Diener, 1993). Although there was no significant difference between males' and females' life satisfaction for graduate students, $F(1,519)=0.42, p=.518$, I did observe a significant sex difference for talent search participants, $F(1,287.90)=368.37, p<.001$. I also observed a significant interaction of sex and parenthood status among both groups, graduate student $F(1,519)=5.64, p=.018$, talent search $F(1,287.90)=14.55, p<$ .001 ; of the four groups, the mothers were most satisfied with their lives, and the childless women were least satisfied with theirs.

Table 2: Life satisfaction, annual income, and career satisfaction for graduate student (GS) and talent search (TS) participants, by sex and parenthood status

Mean Outcome

| Outcome | Graduate Students |  | Talent Search Ps |  |
| :---: | :---: | :---: | :---: | :---: |
|  | M | F | M | F |
| Life satisfaction (from 5 to $35,20=$ neutral, 35 | $=$ happiest $)$ |  |  |  |
| Without children | $25.1(4.6)$ | $24.5(4.6)$ | $24.2(7.5)$ | $22.8(6.6)$ |
| With children | $27.0(4.4)$ | $28.2(4.2)$ | $26.8(5.6)$ | $30.0(4.6)$ |
| Annual income (in US\$) |  |  |  |  |
| Without children | $83,000(34,000)$ | $75,500(28,000)$ | $111,000(132,300)$ | $83,100(62,500)$ |
| With children | $91,100(43,400)$ | $70,000(51,200)$ | $149,100(202,000)$ | $69,600(94,200)$ |

\% with Outcome

|  | Graduate Students |  | Talent Search Ps |  |
| :---: | :---: | :---: | :---: | :---: |
| Outcome | M | F | M | F |
| Was satisfied or very satisfied with career |  |  |  |  |
| Without children | $60 \%$ | $57 \%$ | $55 \%$ | $61 \%$ |
| With children | $76 \%$ | $71 \%$ | $66 \%$ | $64 \%$ |

Note. Minimum $n$ for GS males without children $=111$. Minimum $n$ for GS males with children $=133$. Minimum $n$ for GS females without children $=113$. Minimum $n$ for GS females with children $=118$. Minimum $n$ for TS males without children $=147$. Minimum $n$ for TS males with children $=83$. Minimum $n$ for TS females without children $=54$. Minimum $n$ for TS females with children $=26$.

More than half of the participants of both samples were either satisfied or very satisfied with their careers. While differences were not large, a significantly higher proportion of graduate student parents were satisfied or very satisfied with their careers than were their childless same-sex counterparts, males $\chi^{2}(1)=$ 7.84, $p<.01$; females $\chi^{2}(1)=5.47, p<.05$. Those effects were replicated among the talent search
participants, although the magnitudes were not statistically significant for the females, males $\chi^{2}(1)=3.84, p$ $<.05$; females $\chi^{2}(1)=.079, p=.77$.

Overall, the participants of both groups had reached extraordinary levels of achievement in their careers by their mid-30s. The mean income from primary employment of both groups exceeded $\$ 80,000$ per year, graduate student marginal $M=\$ 80,600, S D=\$ 42,700$, talent search marginal $M=\$ 112,700, S D$ $=\$ 145,500$. I observed a main effect of sex on income among both groups, graduate student $F(1,473)=$ 14.77, $p<.001$, talent search $F(1,301)=7.00, p=.009$. Neither the main effect of parenthood status on income, graduate student $F(1,473)=.12, p=.728$, talent search $F(1,301)=.38, p=.540$, nor the interaction of sex and parenthood status was significant, graduate student $F(1,473)=3.37, p=.067$, talent search $F(1,301)=1.64, p=.201$.

## Discussion

A number of comments can be made about the results of Study 2. First, as in Study 1, the graduate student males and females agree on their personal views and life values in several areas, such as having children, having leisure time to enjoy interests outside of work, making a contribution to the greater good, and being a team player. Furthermore, the talent search participants replicate many of these similarities. Second, some sex differences in values and views replicate across cohorts: Males from both cohorts place more value than the females do on having a full-time career, having lots of money, and being successful in their careers, and they agree more than the females do that they want to be recognized as the best in their fields, that society should invest in their ideas because they are more important than those of other people in their discipline, and that they tend to put their own needs before others' needs. Females place more value than males do on having a part-time career, having strong friendships, giving back to the community, and being there for family and friends, and they agree more than males do that society has a responsibility to meet the basic needs of all its members, that it is important that no one goes without or gets left behind, and that they can relatively easily multi-task. The items that males endorse more seem to reveal an elevated need for compensation, recognition, and influence in the workplace, and perhaps more of an intraindividual perspective, while the items the females endorse more seem to indicate some reluctance to devote themselves fully to work, and perhaps instead a preference to spread their commitments out among
work, friends, family, and the community, or more of an inter-individual perspective. These sex differences in preferences also are consistent with the sex differences in annual income that I found: males in both cohorts receive higher income than the females do, consistent with their higher average level of commitment to work.

Third, these sex differences in values vary as a function of parenthood. Prototypic sex differences and sex differences for items regarding commitment to work are larger among parents than among nonparents: success in work, inventing something that has an impact, having a full-time career or a part-time career, and working at home are all items that showed these differences. These gender-differentiating patterns have been observed in the general population. Perhaps the best known characterization of these gender-differentiating clusters in the psychological sciences is offered in Bakan's (1966) treatment, The Duality of Human Existence, namely, "agency" and "communion." Recently, Tellegen and Waller (2008) have provided evidence for these two clusters as distinctive aspects of positive emotionality: agentic positive emotionality (or effectance motivation and mastery) and communal positive emotionality (or the tendency to be involved in interpersonal transactions). That these clusters emerge in two exceptionally able and high-achieving cohorts, one of which is similar on a host of important experiential and personological dimensions through their early 20 s, is especially noteworthy.

The participants have high levels of income and high levels of life and career satisfaction, and parents are more satisfied than childless participants ${ }^{2}$. Additionally, I find an interaction between parenthood status and sex in their effect on life satisfaction among both cohorts. The mothers are most satisfied, followed by the fathers and the childless males. The childless females report the least satisfaction with life overall. Perhaps the mothers, whose work preferences, life values, and personal views seem to stand out most from those of the other groups, are very happy with their lives despite their differences in opinion with the other groups, or maybe they are so happy because they have different views. The participants' high life satisfaction, regardless of their demonstrated sex difference in income, is consistent with studies showing that beyond a certain threshold income is not correlated with happiness (Kesebir \&

[^2]Diener, 2008). Ultimately, even though participants have some different and some similar ideas about what they value in life, they are satisfied with life and are satisfied with their careers. They appear content.

## CHAPTER III

## ANCILLARY AND SUPPORTIVE ANALYSES: MULTIPLE REPLICATIONS

Many of the Work Preferences, Life Values, and Personal Views items were assessed as part of the age 23 (10-year) and/or age 33 (20-year) follow-ups of two other SMPY cohorts of talent search participants, who were identified between 1972 and 1979 as being in the top $1 \%$ in quantitative reasoning ability (Benbow, Lubinski, Shea, \& Eftekhari-Sanjani, 2000). For replication purposes I calculated male-minus-female effect sizes to determine if the sex differences found in these additional groups replicated those of the graduate student and profoundly gifted samples. These results are presented in the Appendix (Tables A1 and A2). The older cohort, identified in the early 1970s, was administered the Work Preferences items and demonstrated many of the same similarities and differences between the sexes in their age 33 responses to the Work Preferences items as the graduate students did; likewise, both cohorts replicated the similarities and differences found among the Life Values of the graduate student and profoundly gifted groups. Thus, the sex differences in lifestyle preferences observed in this study appear to be fairly robust and stable over time and over multiple high-ability cohorts.

## CHAPTER IV

## GENERAL DISCUSSION

Overall, the constellations formed by these heterogeneous collections of work preferences, life values, and personal views indicate somewhat different psychological orientations toward life for exceptionally talented and opportunity-advantaged men and women in their mid-30s, and these differences in orientations seem to be intensified by parenthood. Following the completion of their terminal degrees, males seem to be more career-focused, whereas the females appear to be more holistic in their orientation toward life, and more attendant to family, friends, and the social well-being of themselves and others more generally. Parenthood status seems to moderate some of the relationships, particularly those that involve commitment to work and its juxtaposition with commitment to family and the community. Furthermore, at least for the graduate students, and likely other highly able men and women as well (Webb, Lubinski, \& Benbow, 2002), these orientations continue to develop during young adulthood (Gottfredson, 1981, 2005; Hakim, 2000, 2006), becoming increasingly important factors, along with stable personality traits and abilities, in people's career and life choices. Ultimately, despite their different priorities, both the males and females of these samples report high levels of life satisfaction, which suggests that there are many paths to a satisfying life.

The sex differences observed in this study seem to indicate that, while these highly capable males and females have many psychological similarities, they nevertheless take somewhat different approaches to managing their multiple roles in life during the decade following their formal education that are reminiscent of Bakan's (1966) formulation of agency and communion. That this is true of the graduate students is especially noteworthy, because they were very similar in their abilities, educational-vocational preferences, and educational experiences at age 25 (Lubinski, Benbow, et al., 2001). In their mid-30s, the males focus on and value status in their careers most; on the contrary, the females spread their attention among their roles more evenly, tending to give more weight than males do to their roles outside of work for fulfillment in life. For females, relative to males, family, friends, and social well-being outside of work tend to be more dominant life themes. These conclusions align with previous findings that females have more diffuse
attention and males more focused attention (Johnson \& Bouchard, 2007a) and other research on sex differences in time willing to devote to current and ideal careers (Lubinski \& Benbow, 2006). They also serve as a reminder that life is ipsative: just as a decision in favor of working long hours might lead to greater success in one's career, it might also require sacrifices in one's personal life, and vice versa. However, sacrifices that some people consider merely inconvenient may be deemed wholly unacceptable by others (Lubinski \& Benbow, 2001).

Some intriguing patterns emerge when I examine the parents' and childless participants' responses separately. First, I observe larger sex differences among parents than among childless participants. Although they are at least as able as the remainder of the participants, the mothers stand out in their commitment to short, flexible work weeks and part-time work. Additionally, it is clear that both the males and the females studied here vary within sex in their preferences and views. Although the males with and without children respond very similarly to most of the items I presented in Figures 3, 6, and 7, I observe more variation in the females' responses: in some cases the childless women have responses more similar to those of the males than to the responses of the females with children. These results align with previous findings that most childless women, like most men, are work-centered, valuing competitive rivalry, achievement orientation, and individualism, in contrast to other women, who either prioritize family life and children, valuing caring, sharing, and community (home-centered women), or reconcile these two sets of values, Hakim's (Hakim, 2000, 2006) "adaptive women."

Indeed, I have observed among these cohorts of highly talented participants a finding well-known in the study of individual differences: The differences observed between the sexes pale in comparison to the individual differences observed within the sexes for both parents and non-parents. While it is appropriate to aggregate individual differences variables to understand over- and under-representation and differential group trajectories (Lubinski \& Humphreys, 1997), the maximization of human capital and predictions about individuals require individual, and not group, appraisals (Gottfredson, 2002). Indeed, often, group membership offers little if any added value, once traditional measures of human individuality are taken into account (Hakim, 2007; Lubinski \& Humphreys, 1997; Webb et al., 2002).

Additionally, when modeling work adjustment, performance, and satisfaction based on individual differences in specific abilities, educational-vocational preferences, and learning and work opportunities
(Dawis \& Lofquist, 1984; Lofquist \& Dawis, 1991), it is important to keep in mind that the determinants that bring people to certain niches for learning and work do not always remain dominant life forces (Browne, 2002, 2004-2005; Pinker, 2008; Rhoads, 2004; Rothman, 2006). Over time, developmental changes and life demands, such as parenthood, can shift priorities (Hakim, 2000, 2006), and developmental determinants of early career circumscription and compromise (Gottfredson, 1981, 2005) may also affect choices later in life by coming on- as well as off-line. As similar as the graduate student males and females were in their mid-20s, it is clear that, on average, their relative levels of commitment to work diverged over the course of the ensuing decade. Demands from life domains outside of education and work appear to condition not only how specific abilities and educational-vocational preferences relevant to performance and choice in education and work are actualized, but also how people perceive and evaluate their own learning and work opportunities.

On average, the males and females in this study demonstrate differing orientations toward life; in addition, they also display minor differences in career choices (Lubinski et al., 2006): In the graduate student sample, approximately $75 \%$ of the males and $65 \%$ of the females are professors, engineers and scientists, while $0 \%$ of the males and $9 \%$ of the females are homemakers. In the profoundly gifted sample, approximately $57 \%$ of the males and $44 \%$ of the females are professors, engineers, and scientists, and $1 \%$ of the males and $9 \%$ of the females are homemakers. Furthermore, the males have higher income than the females have. Nevertheless, their high career satisfaction and high life satisfaction both imply that the males and females have simply, on average, found somewhat different ways to achieve happiness or a satisfying life.

These results likely have implications for the differential male/female representation in timeintensive and high-level careers. At the very least, they should be taken into account in future treatments of gender disparities in high-level occupations, especially for careers characterized by rapid changes in conceptual knowledge and technical sophistication, unpredictable hours, and travel demands at a moment's notice. My findings suggest that both a lifespan-development perspective and the assessment of balance among broad life domains facilitate understanding life choices at the individual and group levels. Broad dispositional attributes relevant to learning and work (abilities and educational-vocational interests), while clearly important determinants of behavior and development in education and the world of work
(Armstrong \& Rounds, 2008; Dawis, 1992; Dawis \& Lofquist, 1984; Gottfredson, 1981, 2005; Holland, 1996; Rounds \& Tracey, 1990), tell only part of the story. Ongoing developmental changes and fluctuations in life priorities, which frequently surface over the course of young adulthood, and subsequent to one's formal education, are required to tell a more comprehensive story.

## APPENDIX

Tables A1-A2 present the sex differences in work preferences and life values of two additional groups of talent search participants. Tables A3-A6 present the means, standard deviations, and confidence intervals around the standardized mean differences for the items in Figures 1, 2, 4, and 5, respectively. Table A7 presents the means and standard deviations for Table A2.

Table A1. Age 33 sex differences in work preferences for early-1970s TS participants: Means, standard deviations, and effect sizes (d)

| Values | Group Mean (SD) |  | Effect Size |
| :---: | :---: | :---: | :---: |
|  | Males | Females |  |
| Being able to take risks on my job | 2.94 (1.18) | 2.52 (1.13) | 0.37 |
| Working with things (e.g. machines) as part of your job | 2.03 (1.13) | 1.66 (0.97) | 0.35 |
| A reasonable benefits package | 2.99 (1.25) | 3.14 (1.21) | -0.12 |
| A salary that is well above the average person's salary | 3.01 (1.26) | 2.63 (1.16) | 0.32 |
| A merit-based pay system | 3.13 (1.30) | 2.87 (1.31) | 0.20 |
| The prestige or reputation of the organization | 2.75 (1.09) | 2.74 (1.08) | 0.01 |
| Freedom to do pretty much what I want | 3.05 (1.17) | 3.03 (1.12) | 0.02 |
| Traveling as a part of the work I do | 1.86 (1.03) | 1.60 (0.95) | 0.27 |
| Seeing projects on my job through from beginning |  |  |  |
| Holding an administrative position | 1.91 (1.07) | 1.88 (1.09) | 0.03 |
| The prestige of the job I have | 2.69 (1.12) | 2.46 (1.09) | 0.21 |
| Performing similar tasks each work day | 1.38 (0.63) | 1.45 (0.69) | -0.10 |
| Opportunities for promotion | 3.13 (1.18) | 2.93 (1.18) | 0.17 |
| Using complex or high-level skills | 3.90 (0.99) | 3.70 (1.05) | 0.19 |
| Completing your job independently of others | 2.63 (1.14) | 2.75 (1.18) | -0.10 |
| A good retirement package | 2.60 (1.18) | 2.50 (1.15) | 0.08 |
| The capability to contribute to decisions made | 3.79 (0.94) | 3.63 (0.97) | 0.16 |
| A challenging job | 4.04 (0.85) | 3.91 (0.91) | 0.14 |
| The opportunity to learn new things on my job | 4.12 (0.85) | 4.10 (0.85) | 0.03 |
| Meeting individuals on the job with whom I can develop |  |  |  |
| Having friendly co-workers or colleagues | 3.56 (0.90) | 3.60 (0.95) | -0.04 |
| Being able to talk informally with other employees at work | 3.32 (1.04) | 3.36 (1.05) | -0.04 |
| Working with other people as part of your job | 3.17 (1.09) | 3.24 (1.21) | -0.06 |
| Freedom to do my tasks or job uninterrupted | 2.96 (1.10) | 3.02 (1.14) | -0.06 |
| Being able to exercise leadership on my job | 3.30 (1.16) | 3.11 (1.19) | 0.16 |
| Having the results of my work significantly affect the lives |  |  | -0.18 |
| Keeping busy on my job | 3.31 (0.99) | 3.44 (0.97) | -0.14 |
| Freedom from supervision | 3.23 (1.16) | 3.22 (1.14) | 0.01 |
| The ability to do my work well | 4.47 (0.67) | 4.56 (0.59) | -0.14 |
| Knowing how well I am doing on my projects | 3.66 (0.92) | 3.75 (0.87) | -0.10 |
| Variety in the tasks that I do | 3.71 (0.89) | 3.70 (0.95) | 0.01 |
| Having control over the pace of my work | 3.26 (0.96) | 3.25 (0.94) | 0.01 |
| Enjoying the work that I do | 4.55 (0.68) | 4.62 (0.64) | -0.11 |
| Being satisfied with the work I do | 4.41 (0.72) | 4.47 (0.67) | -0.07 |
| Respecting my colleagues or coworkers | 3.58 (0.91) | 3.67 (0.93) | -0.10 |
| A stress-free working environment | 2.35 (1.14) | 2.63 (1.16) | -0.25 |
| Being left on my own to do my work | 3.44 (1.15) | 3.71 (1.06) | -0.25 |
| Clean working conditions | 2.88 (1.09) | 3.33 (1.10) | -0.41 |
| Working Monday through Friday and having weekends free | 2.66 (1.28) | 2.99 (1.43) | -0.24 |
| Flexibility in my work schedule | 3.28 (1.16) | 3.58 (1.13) | -0.26 |
| Working no more than 60 hours in a week | 3.66 (1.34) | 4.12 (1.27) | -0.35 |
| Working no more than 50 hours in a week | 1.98 (1.16) | 2.80 (1.42) | -0.63 |

Note. Minimum male $n=671$. Minimum female $n=440$. These items used a 5 -point scale, ranging from 1 ( not important) to 5 (extremely important).
$\underline{\text { Table A2. Sex differences in life values for early- and late-1970s TS participants }}$

| Values | $d$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1972-1975 |  | 1977-1979 |  |
|  | Age $23{ }^{\text {a }}$ | Age 33 ${ }^{\text {b }}$ | Age $23{ }^{\text {c }}$ | Age 33 ${ }^{\text {d }}$ |
| Having a full-time career | - | 0.70 | - | 0.28 |
| Inventing or creating something that will have an impact | - | 0.37 | - | 0.27 |
| Having lots of money | 0.12 | 0.35 | 0.03 | 0.50 |
| Being successful in my line of work | -0.07 | 0.22 | -0.03 | 0.12 |
| Continuing to develop my intellectual interests | - | -0.02 | - | 0.02 |
| Continuing to develop my skills/talents | - | -0.03 | - | -0.11 |
| Being able to give my children better opportunities than I've had | 0.07 | 0.05 | 0.09 | 0.18 |
| Being a leader in my community | 0.27 | 0.10 | 0.06 | 0.06 |
| Having a good education | -0.23 | -0.20 | -0.09 | -0.17 |
| Having children | -0.14 | -0.16 | -0.15 | -0.22 |
| Having leisure time to enjoy my own interests | -0.11 | -0.07 | -0.16 | -0.12 |
| Finding the right person to marry and having a happy family life | -0.04 | 0.08 | -0.08 | -0.08 |
| Being politically active in my community | - | 0.08 | - | -0.00 |
| Having a meaningful spiritual life | - | -0.20 | - | -0.28 |
| Maintaining a close relationship with my parents | - | -0.24 | - | -0.28 |
| Living close to parents and relatives | -0.32 | -0.25 | -0.27 | -0.19 |
| Having time to socialize | - | -0.09 | - | -0.14 |
| Not working outside the home | - | -0.55 | - | -0.32 |
| Having strong friendships | -0.10 | -0.33 | -0.13 | -0.18 |
| Having a part-time career for a limited time-period | - | -0.76 | - | -0.76 |
| Having a part-time career | - | -0.64 | - | -0.65 |

Note. A dash indicates that the item was not administered. ${ }^{\text {a }}$ Minimum male $n=518$; minimum female $n=$ 338. ${ }^{\mathrm{b}}$ Minimum male $n=727$; minimum female $n=475$. ${ }^{\mathrm{c}}$ Minimum male $n=223$; minimum female $n=$ 121. ${ }^{\mathrm{d}}$ Minimum male $n=348$; minimum female $n=174$. These items used a 5 -point scale, ranging from 1 ( not important) to 5 (extremely important).
Table A3. Means, standard deviations, and $95 \%$ confidence intervals around $d$ s for Figure 1

| Values | Group Mean (SD) |  |  |  | Effect Size 95\% CI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males |  | Females |  | Males | Females |
|  | Mid-20s ${ }^{\text {a }}$ | Mid-30s ${ }^{\text {b }}$ | Mid-20s ${ }^{\text {c }}$ | Mid-30s ${ }^{\text {d }}$ |  |  |
| A merit-based pay system | 2.39 (1.21) | 3.10 (1.20) | 2.24 (1.16) | 2.85 (1.25) | [.42, .76] | [.34, .68] |
| Working no more than 50 hours in a week | 3.00 (1.38) | 2.85 (1.32) | 3.11 (1.25) | 3.66 (1.31) | [-.28, .04] | [.26, .60] |
| Being able to exercise leadership on my job | 3.03 (1.14) | 3.29 (1.13) | 3.02 (1.03) | 3.35 (1.00) | [.07, .39] | [.15, .49] |
| Working no more than 60 hours in a week | 3.52 (1.41) | 3.41 (1.35) | 3.62 (1.28) | 4.02 (1.23) | [-.24, .08] | [.15, .49] |
| Working Monday through Friday and having weekends free | 2.74 (1.26) | 2.73 (1.25) | 2.83 (1.29) | 3.20 (1.25) | [-.17, .15] | [.13, .47] |
| Flexibility in my work schedule | 3.56 (1.06) | 3.38 (1.03) | 3.50 (1.05) | 3.78 (0.96) | [-.34, -.02] | [.11, .45] |
| Having the results of my work significantly affect the lives or well-being of other people | 3.25 (1.24) | 3.32 (1.11) | 3.23 (1.13) | 3.38 (1.06) | [-.11, .21] | [-.04, .30] |
| The prestige or reputation of the organization | 2.71 (1.04) | 2.83 (1.04) | 2.52 (1.01) | 2.64 (1.00) | [-.04, .28] | [-.04, .30] |
| Freedom from supervision | 3.18 (1.11) | 2.98 (1.09) | 2.97 (1.08) | 3.07 (1.17) | [-.34, -.02] | [-.09, .25] |
| Being able to take risks on my job | 2.88 (1.15) | 3.10 (1.04) | 2.55 (1.17) | 2.64 (1.08) | [.04, .36] | [-.09, .25] |
| A good retirement package | 2.99 (1.13) | 2.93 (1.02) | 2.80 (1.05) | 2.86 (0.97) | [-.21, .11] | [-.11, .23] |
| A salary that is well above the average person's salary | 2.70 (1.18) | 2.84 (1.20) | 2.54 (1.10) | 2.59 (1.11) | [-.05, .27] | [-.12, .22] |
| Respecting my colleagues or coworkers | 3.70 (0.89) | 3.70 (0.92) | 3.91 (0.81) | 3.95 (0.78) | [-.16, .16] | [-.12, .22] |
| The prestige of the job I have | 2.51 (1.07) | 2.60 (0.96) | 2.43 (1.02) | 2.47 (0.98) | [-.07, .25] | [-.13, .21] |
| Freedom to do my tasks or job uninterrupted | 3.15 (1.11) | 3.03 (1.03) | 3.07 (1.09) | 3.07 (1.04) | [-.28, .04] | [-.17, .17] |
| Using complex or high-level skills | 4.03 (0.95) | 4.08 (0.95) | 4.01 (0.87) | 3.98 (0.95) | [-.11, .21] | [-.19, .15] |
| A reasonable benefits package | 3.36 (1.09) | 3.55 (0.91) | 3.38 (0.99) | 3.34 (0.98) | [.03, .35] | [-.21, .13] |
| Freedom to do pretty much what I want | 3.41 (1.07) | 3.07 (1.12) | 3.05 (0.99) | 3.00 (1.17) | [-.47, -. 15] | [-.22, .12] |
| The capability to contribute to decisions made | 3.73 (0.88) | 3.65 (0.93) | 3.64 (0.85) | 3.59 (0.91) | [-.25, .07] | [-.23, .11] |
| Clean working conditions | 3.13 (1.18) | 2.91 (1.07) | 3.38 (1.12) | 3.29 (1.08) | [-.35, -.03] | [-.24, .10] |
| Having control over the pace of my work | 3.40 (0.88) | 3.15 (0.89) | 3.37 (0.83) | 3.29 (0.89) | [-.44, -. 12] | [-.26, .08] |
| Performing similar tasks each work day | 1.29 (0.56) | 1.36 (0.68) | 1.35 (0.60) | 1.29 (0.60) | [-.04, .28] | [-.26, .08] |
| Being left on my own to do my work | 3.51 (1.15) | 3.51 (1.10) | 3.53 (1.02) | 3.42 (1.21) | [-.16, .16] | [-.27, .07] |
| Opportunities for promotion | 3.39 (1.07) | 3.42 (1.06) | 3.41 (1.01) | 3.30 (1.08) | [-.13, .19] | [-.27, .07] |
| The opportunity to learn new things on my job | 4.29 (0.86) | 4.19 (0.89) | 4.30 (0.74) | 4.20 (0.79) | [-.28, .04] | [-.31, .03] |
| A stress-free working environment | 2.91 (1.16) | 2.43 (1.04) | 2.89 (1.17) | 2.73 (1.06) | [-.61, -. 27] | [-.31, .03] |
| Knowing how well I am doing on my projects | 3.62 (0.89) | 3.52 (0.88) | 3.77 (0.85) | 3.65 (0.83) | [-.26, .06] | [-.31, .03] |
| A challenging job | 4.07 (0.86) | 4.00 (0.78) | 4.09 (0.81) | 3.96 (0.82) | [-.24, .08] | [-.32, .02] |


| Variety in the tasks that I do | 3.81 (0.88) | 3.55 (0.92) | 3.84 (0.85) | 3.70 (0.91) | [-. $45,-.13]$ | [-.33, .00] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Seeing projects on my job through from beginning |  |  |  |  |  |  |
| to end | 3.27 (1.02) | 3.18 (1.01) | 3.18 (1.05) | 3.00 (1.00) | [-.25, .07] | [-.33, .00] |
| Traveling as a part of the work I do | 2.13 (1.08) | 1.72 (0.89) | 1.88 (0.96) | 1.71 (0.96) | [-.58, -.25] | [-.33, .00] |
| Keeping busy on my job | 3.41 (1.02) | 3.31 (0.97) | 3.55 (0.97) | 3.37 (0.97) | [-.25, .07] | [-.35, -.01] |
| Holding an administrative position | 1.92 (1.03) | 1.73 (0.93) | 1.87 (1.06) | 1.58 (0.92) | [-.35, -.03] | [-.46, -. 12] |
| The ability to do my work well | 4.51 (0.63) | 4.36 (0.67) | 4.61 (0.58) | 4.43 (0.63) | [-.39, -.07] | [-.47, -. 13] |
| Being satisfied with the work I do | 4.49 (0.65) | 4.27 (0.72) | 4.61 (0.56) | 4.43 (0.62) | [-.48, -.16] | [-.48, -.14] |
| Meeting individuals on the job with whom I can develop friendships | 3.82 (0.96) | 3.25 (1.05) | 3.71 (0.97) | 3.28 (1.07) | [-.73, -.39] | [-.59, -.25] |
| Enjoying the work that I do | 4.84 (0.42) | 4.52 (0.64) | 4.86 (0.37) | 4.62 (0.57) | [-.76, -.42] | [-.67, -.33] |

Note. A dash indicates that the item was not administered. ${ }^{\text {a }}$ Minimum $n=304 .{ }^{\text {b }}$ Minimum $n=268 .{ }^{\mathrm{c}}$ Minimum $n=291$. ${ }^{\text {d }}$ Minimum $n=251$. These items used a 5-point scale, ranging from 1 (not important) to 5 (extremely important).
Table A4. Means, standard deviations, and $95 \%$ confidence intervals around $d$ s for Figure 2

| Values | Group Mean (SD) |  |  |  | Effect Size 95\% CI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mid-20s |  | Mid-30s |  | Mid-20s | Mid-30s |
|  | Male ${ }^{\text {a }}$ | Female ${ }^{\text {b }}$ | Male ${ }^{\text {c }}$ | Female ${ }^{\text {d }}$ |  |  |
| Being able to take risks on my job | 2.88 (1.15) | 2.55 (1.17) | 3.10 (1.04) | 2.64 (1.08) | [.12, .45] | [.26, .61] |
| Working with things (e.g. machines) as part of your job | 2.50 (1.25) | 2.14 (1.12) | - | - | [.15, .47] | - |
| Being able to design and execute my own research ideas | - | - | 3.47 (1.18) | 3.10 (1.34) | - | [.12, .47] |
| A reasonable benefits package | 3.36 (1.09) | 3.38 (0.99) | 3.55 (0.91) | 3.34 (0.98) | [-.17, .15] | [.04, .38] |
| A salary that is well above the average person's salary | 2.70 (1.18) | 2.54 (1.10) | 2.84 (1.20) | 2.59 (1.11) | [-.01, .31] | [.03, .37] |
| A merit-based pay system | 2.39 (1.21) | 2.24 (1.16) | 3.10 (1.20) | 2.85 (1.25) | [-.03, .29] | [.03, .37] |
| The prestige or reputation of the organization | 2.71 (1.04) | 2.52 (1.01) | 2.83 (1.04) | 2.64 (1.00) | [.03, .35] | [.02, .36] |
| Freedom to do pretty much what I want | 3.41 (1.07) | 3.05 (0.99) | 3.07 (1.12) | 3.00 (1.17) | $[.19, .51]$ | [-.11, .24] |
| Traveling as a part of the work I do | 2.13 (1.08) | 1.88 (0.96) | 1.72 (0.89) | 1.71 (0.96) | [.09, .41] | [-.16, .19] |
| Seeing projects on my job through from beginning to end | 3.27 (1.02) | 3.18 (1.05) | 3.18 (1.01) | 3.00 (1.00) | [-.07, .25] | [.00, .35] |
| Holding an administrative position | 1.92 (1.03) | 1.87 (1.06) | 1.73 (0.93) | 1.58 (0.92) | [-.11, .21] | [-.01, .34] |
| Being able to mentor junior colleagues | - | - | 2.63 (1.01) | 2.48 (1.02) | - | [-.02, .32] |
| The prestige of the job I have | 2.51 (1.07) | 2.43 (1.02) | 2.60 (0.96) | 2.47 (0.98) | [-.08, .24] | [-.03, .31] |
| Performing similar tasks each work day | 1.29 (0.56) | 1.35 (0.60) | 1.36 (0.68) | 1.29 (0.60) | [-.26, .06] | [-.06, .29] |
| Opportunities for promotion | 3.39 (1.07) | 3.41 (1.01) | 3.42 (1.06) | 3.30 (1.08) | [-.18, .14] | [-.06, .28] |
| Using complex or high-level skills | 4.03 (0.95) | 4.01 (0.87) | 4.08 (0.95) | 3.98 (0.95) | [-.13, .19] | [-.07, .27] |
| Being left on my own to do my work | 3.51 (1.15) | 3.53 (1.02) | 3.51 (1.10) | 3.42 (1.21) | [-.18, .15] | [-.09, .25] |
| Completing your job independently of others | 2.55 (1.13) | 2.51 (1.06) | - | - | [-.12, .20] | - |
| A good retirement package | 2.99 (1.13) | 2.80 (1.05) | 2.93 (1.02) | 2.86 (0.97) | [.02, .34] | [-.10, .25] |
| The capability to contribute to decisions made | 3.73 (0.88) | 3.64 (0.85) | 3.65 (0.93) | 3.59 (0.91) | [-.06, .26] | [-.11, .24] |
| A challenging job | 4.07 (0.86) | 4.09 (0.81) | 4.00 (0.78) | 3.96 (0.82) | [-.18, .14] | [-.13, .21] |
| Living in an urban rather than a rural environment | - | - | 2.16 (1.31) | 2.11 (1.30) | - | [-.13, .22] |
| Job security | - | - | 3.43 (1.06) | 3.40 (1.06) | - | [-.14, .20] |
| Having opportunities to educate others | - | - | 3.23 (1.11) | 3.21 (1.14) | - | $[-.15, .19]$ |
| The opportunity to learn new things on my job | 4.29 (0.86) | 4.30 (0.74) | 4.19 (0.89) | 4.20 (0.79) | [-.17, .14] | [-.18, .16] |
| Meeting individuals on the job with whom I can develop friendships | 3.82 (0.96) | 3.71 (0.97) | 3.25 (1.05) | 3.28 (1.07) | [-.05, .27] | [-.20, .14] |


| Having friendly co-workers or colleagues | 3.97 (0.83) | 4.01 (0.81) | - | - | $[-.21, .11]$ | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Being able to talk informally with other employees at work | 3.80 (0.93) | 3.73 (0.90) | - | - | [-.08, . 24$]$ | - |
| Working with other people as part of your job | 3.24 (1.09) | 3.18 (1.07) | - | - | [-.11, .21] | - |
| Freedom to do my tasks or job uninterrupted | 3.15 (1.11) | 3.07 (1.09) | 3.03 (1.03) | 3.07 (1.04) | [-.08, .24] | $[-.21, .13]$ |
| Being able to exercise leadership on my job | 3.03 (1.14) | 3.02 (1.03) | 3.29 (1.13) | 3.35 (1.00) | [-.16, .17] | $[-.23, .12]$ |
| Having the results of my work significantly affect the lives or well-being of other people | 3.25 (1.24) | 3.23 (1.13) | 3.32 (1.11) | 3.38 (1.06) | [-.14, .18] | [-.23, .11] |
| Keeping busy on my job | 3.41 (1.02) | 3.55 (0.97) | 3.31 (0.97) | 3.37 (0.97) | $[-.30, .02]$ | $[-.23, .11]$ |
| Freedom from supervision | 3.18 (1.11) | 2.97 (1.08) | 2.98 (1.09) | 3.07 (1.17) | [.03, .35] | $[-.25, .09]$ |
| The ability to do my work well | 4.51 (0.63) | 4.61 (0.58) | 4.36 (0.67) | 4.43 (0.63) | [-.33, -. 01$]$ | [-.28, .06] |
| Knowing how well I am doing on my projects | 3.62 (0.89) | 3.77 (0.85) | 3.52 (0.88) | 3.65 (0.83) | [-.34, -. 02] | [-.32,.02] |
| Variety in the tasks that I do | 3.81 (0.88) | 3.84 (0.85) | 3.55 (0.92) | 3.70 (0.91) | $[-.19, .13]$ | $[-.33, .01]$ |
| Having control over the pace of my work | 3.40 (0.88) | 3.37 (0.83) | 3.15 (0.89) | 3.29 (0.89) | $[-.13, .19]$ | [-.33, .01] |
| Enjoying the work that I do | 4.84 (0.42) | 4.86 (0.37) | 4.52 (0.64) | 4.62 (0.57) | $[-.21, .11]$ | [-.34, .00] |
| Being satisfied with the work I do | 4.49 (0.65) | 4.61 (0.56) | 4.27 (0.72) | 4.43 (0.62) | [-.36, -. 04$]$ | [-.41, -. 06 ] |
| Having a short commute time from home to job | - | - | 3.15 (1.03) | 3.41 (1.10) | - | [-.41, -. 06 ] |
| Flexibility to work at home | - | - | 2.48 (1.20) | 2.83 (1.27) | - | [-.41, -. 07 ] |
| Respecting my colleagues or coworkers | 3.70 (0.89) | 3.91 (0.81) | 3.70 (0.92) | 3.95 (0.78) | [-.41, -. 09$]$ | [-.46, -. 11 ] |
| A stress-free working environment | 2.91 (1.16) | 2.89 (1.17) | 2.43 (1.04) | 2.73 (1.06) | [-.14, .18] | [-.46, -. 12] |
| Clean working conditions | 3.13 (1.18) | 3.38 (1.12) | 2.91 (1.07) | 3.29 (1.08) | [-.38, -. 06 ] | [-.53, -. 19] |
| Working Monday through Friday and having weekends free | 2.74 (1.26) | 2.83 (1.29) | 2.73 (1.25) | 3.20 (1.25) | [-.23, .09] | [-.55, -. 21 ] |
| Flexibility in my work schedule | 3.56 (1.06) | 3.50 (1.05) | 3.38 (1.03) | 3.78 (0.96) | [-.10, .22] | [-.58, -. 24] |
| Working no more than 60 hours in a week | 3.52 (1.41) | 3.62 (1.28) | 3.41 (1.35) | 4.02 (1.23) | [-.24, .08] | [-.64, -. 30$]$ |
| Working no more than 50 hours in a week | 3.00 (1.38) | 3.11 (1.25) | 2.85 (1.32) | 3.66 (1.31) | [-.24, .08] | [-.80, -. 45 ] |

[^3]Table A5. Means, standard deviations, and $95 \%$ confidence intervals around $d$ s for Figure 4

| Values | Group Mean (SD) |  |  |  | Effect Size 95\% CI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Talent Search Participants |  | Graduate Students |  | T. Search | G. Students |
|  | Male ${ }^{\text {a }}$ | Female ${ }^{\text {b }}$ | Male | Female ${ }^{\text {a }}$ |  |  |
| Doing research | - | - | 3.38 (1.24) | 2.78 (1.33) | - | [.30, .65] |
| Having a full-time career | 3.27 (1.27) | 3.01 (1.38) | 3.62 (1.07) | 3.09 (1.23) | [-.06, .44] | [.29, .64] |
| Inventing or creating something that will have an impact | 3.28 (1.19) | 2.98 (1.34) | 3.31 (1.10) | 2.90 (1.17) | [-.01, .48] | [.19, .53] |
| Having lots of money | 2.47 (1.01) | 2.11 (0.98) | 2.46 (1.02) | 2.19 (0.84) | [.11, .61] | [.13, .47] |
| Being successful in my line of work | 3.62 (0.90) | 3.51 (1.05) | 3.79 (0.79) | 3.55 (0.88) | [-.14, .35] | [.11, .46] |
| Continuing to develop my intellectual interests | 4.03 (0.87) | 4.13 (0.76) | 4.13 (0.78) | 3.96 (0.80) | [-.36, .13] | [.04, .39] |
| Continuing to develop my skills/talents | 4.05 (0.79) | 4.08 (0.80) | 4.14 (0.72) | 4.00 (0.78) | [-.29, .20] | [.01, .35] |
| Exercising regularly | 3.09 (1.19) | 3.12 (1.07) | 3.51 (1.04) | 3.34 (1.13) | [-.27, .22] | [-.02, .33] |
| Teaching | - | - | 3.05 (1.22) | 2.90 (1.22) | - | [-.05, .29] |
| Being recognized for the contributions I have made | 2.98 (1.01) | 3.24 (1.04) | 3.34 (0.91) | 3.24 (0.89) | [-.50, -. 01 ] | [-.05, .29] |
| Being able to give my children better opportunities than I've had | 2.99 (1.26) | 2.99 (1.41) | 3.31 (1.23) | 3.22 (1.30) | [-.25, .25] | [-.11, .25] |
| Being a leader in my community | 1.72 (0.86) | 1.79 (1.08) | 1.91 (0.98) | 1.85 (0.91) | [-.31, .18] | [-.11, .23] |
| Having a good education | 3.58 (1.02) | 3.83 (1.06) | 3.99 (0.87) | 3.98 (0.84) | [-.49, .00] | [-.15, .19] |
| Having children | 3.37 (1.45) | 3.21 (1.58) | 3.50 (1.32) | 3.52 (1.44) | [-.14, .35] | [-.19, .16] |
| Having leisure time to enjoy avocational interests | 3.79 (0.96) | 3.82 (1.08) | 3.64 (0.92) | 3.69 (0.93) | [-.28, .22] | [-.22, .12] |
| Finding or having the right person to marry | 4.25 (1.01) | 4.33 (1.08) | 4.17 (1.06) | 4.23 (1.00) | [-.33, .17] | [-.23, .12] |
| Maintaining a healthy diet | 3.00 (1.07) | 3.20 (0.91) | 3.45 (0.95) | 3.55 (0.93) | [-.45, .04] | [-.28, .07] |
| Being politically active in my community | 1.77 (1.01) | 1.75 (1.04) | 1.65 (0.81) | 1.75 (0.90) | [-.22, .27] | [-.29, .06] |
| Having a meaningful spiritual life | 2.38 (1.40) | 2.46 (1.44) | 2.58 (1.47) | 2.75 (1.41) | [-.37, .12] | [-.29, .05] |
| Spending quality time with my children every day | 3.75 (1.31) | 3.86 (1.48) | 3.94 (1.24) | 4.12 (1.27) | [-.33, .17] | [-.32, .04] |
| Maintaining a close relationship with my parents | 3.48 (1.12) | 3.81 (1.20) | 3.71 (1.13) | 3.88 (1.07) | [-.53, -. 03 ] | [-.33, .02] |
| Living close to family | 2.15 (1.08) | 2.54 (1.24) | 2.41 (1.04) | 2.57 (1.07) | [-.58, -.09] | [-.33, .02] |
| Having time to socialize | 3.41 (1.00) | 3.52 (1.04) | 3.19 (0.97) | 3.37 (0.95) | [-.36, .13] | [-.36, -.01] |
| Being there for family and friends | 4.06 (0.89) | 4.23 (0.77) | 4.02 (0.86) | 4.19 (0.75) | [-.45, .04] | [-.38, -.04] |
| Community service | 2.39 (1.02) | 2.94 (1.19) | 2.67 (1.08) | 2.83 (1.01) | [-.75, -.25] | [-.33, .02] |
| Giving back to the community | 2.84 (1.05) | 3.30 (1.04) | 2.97 (1.02) | 3.15 (1.00) | [-.69,-.19] | [-.36, -. 01 ] |
| Not working outside the home | 1.14 (0.50) | 1.49 (0.99) | 1.20 (0.64) | 1.39 (0.87) | [-.70, -.19] | [-.42, -.07] |
| Having strong friendships | 4.00 (0.94) | 4.39 (0.86) | 3.83 (0.97) | 4.16 (0.86) | [-.68, -.19] | [-.54, -.19] |
| Having a part-time career for a limited time | 1.32 (0.65) | 2.47 (1.26) | 1.39 (0.82) | 2.04 (1.20) | [-1.42, -.88] | [-.82, -.45] |


| Having a part-time career |
| :--- |
| Note. A dash indicates that the item was not administered. ${ }^{\text {a }}$ Minimum $n=238(0.74)$ |
| 5-point scale, ranging from 1 (not important) to 5 (extremely important). |

Table A6. Means, standard deviations, and $95 \%$ confidence intervals around $d$ s for Figure 5

| Values | Group Mean (SD) |  |  |  | Effect Size 95\% CI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Talent Search Participants |  | Graduate Students |  | T. Search | G. Students |
|  | Male ${ }^{\text {a }}$ | Female ${ }^{\text {b }}$ | Male | Female ${ }^{\text {a }}$ |  |  |
| I believe society should invest in my ideas because they are more important than those of other people in my discipline | 2.71 (1.00) | 2.51 (0.85) | 2.60 (0.85) | 2.31 (0.76) | [-.03, .47] | [.19, .54] |
| I am able to control my emotions when it is appropriate to do so | 4.01 (0.80) | 3.75 (0.78) | 3.93 (0.69) | 3.67 (0.82) | [.09, .58] | [.17, .52] |
| The prospect of receiving criticism from others does not inhibit me from expressing my thoughts | 3.56 (1.01) | 3.30 (0.95) | 3.68 (0.89) | 3.41 (0.92) | [.01, .51] | [.12, .47] |
| I have the capacity for sustained physical activity, playing, and moving about, without tiring and having to rest | 3.32 (1.20) | 3.08 (1.09) | 3.62 (1.03) | 3.34 (0.99) | [-.04, .45] | [.10, .44] |
| I want to be recognized as the best in my field I tend to put myself and my own needs before others and their needs | 3.47 (0.98) | 3.19 (1.02) | 3.24 (1.03) | 2.97 (0.94) | [.03, .52] | [.10, .44] |
|  | 2.88 (0.89) | 2.52 (0.89) | 2.62 (0.90) | 2.40 (0.84) | [.15, .65] | [.07, .42] |
| I am comfortable spending long intervals of time by myself | 4.09 (0.95) | 4.17 (0.82) | 4.13 (0.75) | 3.93 (0.95) | [-.33, .16] | [.06, .41] |
| I persist when others give up | 3.63 (0.83) | 3.69 (0.79) | 3.96 (0.71) | 3.79 (0.77) | [-.32, .17] | [.06, .40] |
| I believe that the most important contribution one can make to humanity is the discovery of scientific principles | 2.41 (0.96) | 2.27 (0.86) | 2.57 (0.94) | 2.39 (0.87) | [-.10, .39] | [.03, .38] |
| The possibility of discomforting others does not deter me from stating the facts | 3.38 (1.05) | 3.19 (0.95) | 3.34 (1.01) | 3.15 (0.97) | [-.06, .44] | [.02, .36] |
| I make a contribution to the greater good | 3.84 (0.74) | 3.85 (0.75) | 3.88 (0.65) | 3.82 (0.60) | $[-.25, .24]$ | [-.07, .28] |
| I have the inner strength to resist popular pressure | 4.08 (0.77) | 3.86 (0.79) | 3.99 (0.74) | 3.97 (0.74) | [.04, .53] | [-.14, .20] |
| I believe that the most important contribution one can make to humanity involves the direct improvement of others' lives | 3.52 (0.93) | 3.73 (1.00) | 3.55 (0.82) | 3.55 (0.83) | [-.46, .03] | [-.18, .16] |
| I approach individuals in higher ranked positions than my own | 4.03 (0.82) | 3.94 (0.77) | 3.91 (0.78) | 3.92 (0.79) | [-.14, .35] | [-.18, .16] |
| I want to improve the human condition | 4.08 (0.76) | 4.23 (0.77) | 3.98 (0.70) | 4.03 (0.67) | [-.44, .06] | [-.23, .11] |


| individuals share responsibilities | 4.06 (0.74) | 4.10 (0.86) | 4.01 (0.59) | 4.06 (0.61) | [-.29, .20] | [-.26, .08] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I think that people have a duty to provide for those less fortunate than themselves | 3.68 (0.92) | 3.92 (0.92) | 3.67 (0.90) | 3.77 (0.79) | [-.51, -.01] | [-.29, .05] |
| I am a team player | 3.80 (0.89) | 3.77 (0.91) | 3.91 (0.69) | 4.00 (0.64) | [-.21, .28] | [-.31, .04] |
| I tend to take charge and give directions | 3.40 (0.98) | 3.68 (0.92) | 3.46 (0.91) | 3.58 (0.84) | [-.54, -.04] | [-.31, .03] |
| Society has a responsibility to meet the basic needs of all its members | 3.83 (1.02) | 4.12 (0.81) | 3.69 (0.93) | 3.89 (0.86) | [-.56, -.06] | [-.39, -.04] |
| I can relatively easily multitask, or do multiple things at once | 3.68 (1.06) | 3.81 (1.07) | 3.67 (0.98) | 3.94 (0.94) | [-.37, .12] | [-.46, -. 12] |
| I can relatively easily shift gears among different tasks | 3.82 (0.98) | 3.76 (0.94) | 3.71 (0.85) | 3.96 (0.84) | [-.18, .31] | [-.46, -.12] |
| Optimal human forms of creativity are found in the arts and humanities | 2.80 (1.01) | 3.14 (0.90) | - | - | [-.61, -.11] | - |
| It is important that no one goes without or gets left behind | 3.51 (1.00) | 3.89 (0.85) | 3.46 (0.91) | 3.76 (0.81) | [-.66, -.16] | [-.51, -.17] |

[^4]Table A7. Means and standard deviations for Table A2

| Values | Group Mean (SD) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1972-1975 |  |  |  | 1977-1979 |  |  |  |
|  | Age $23{ }^{\text {a }}$ |  | Age $33^{\text {b }}$ |  | Age $23{ }^{\text {c }}$ |  | Age 33 ${ }^{\text {d }}$ |  |
|  | Male | Female | Male | Female | Male | Female | Male | Female |
| Having a full-time career | - | - | 3.66 (1.19) | 2.77 (1.35) | - | - | 3.23 (1.23) | 2.87 (1.35) |
| Inventing or creating something |  |  |  |  |  |  |  |  |
| Having lots of money | 1.90 (0.64) | 1.82 (0.65) | 2.56 (1.01) | 2.22 (0.95) | 1.78 (0.60) | 1.76 (0.60) | 2.58 (0.98) | 2.12 (0.86) |
| Being successful in my line of work | 2.70 (0.49) | 2.73 (0.48) | 3.81 (0.88) | 3.61 (0.95) | 2.56 (0.62) | 2.58 (0.57) | 3.76 (0.91) | 3.65 (0.91) |
| Continuing to develop my intellectual interests | - | - | 3.81 (0.96) | 3.83 (0.98) | - | - | 4.01 (0.87) | 3.98 (0.94) |
| Continuing to develop my skills/talents | - | - | 3.96 (0.84) | 3.99 (0.88) | - | - | 4.05 (0.80) | 4.14 (0.85) |
| Being able to give my children better |  |  |  |  |  |  |  |  |
| Being a leader in my community | 1.60 (0.66) | 1.43 (0.59) | 2.06 (1.08) | 1.96 (1.05) | 1.76 (0.65) | 1.72 (0.72) | 2.03 (1.06) | 1.96 (1.08) |
| Having a good education | 2.68 (0.51) | 2.79 (0.44) | 3.66 (0.98) | 3.86 (0.95) | 2.67 (0.56) | 2.72 (0.56) | 3.68 (0.99) | 3.85 (0.96) |
| Having children | 2.27 (0.71) | 2.37 (0.77) | 3.56 (1.40) | 3.78 (1.46) | 2.53 (0.60) | 2.62 (0.61) | 3.51 (1.38) | 3.80 (1.31) |
| Having leisure time to enjoy my own interests | 2.63 (0.53) | 2.69 (0.49) | 3.73 (0.96) | 3.80 (0.97) | 2.24 (0.75) | 2.36 (0.73) | 3.80 (0.92) | 3.91 (0.99) |
| Finding the right person to marry |  |  |  |  |  |  |  |  |
| Being politically active in my community | - | - | 1.76 (0.96) | 1.69 (0.88) | - | - | 1.78 (1.03) | 1.78 (1.07) |
| Having a meaningful spiritual life | - | - | 2.86 (1.42) | 3.15 (1.37) | - | - | 2.67 (1.45) | 3.08 (1.45) |
| Maintaining a close relationship with my parents | - | - | 3.61 (1.13) | 3.88 (1.11) | - | - | 3.70 (1.08) | 4.01 (1.11) |
| Living close to parents and relatives | 1.67 (0.62) | 1.87 (0.63) | 2.34 (1.12) | 2.64 (1.22) | 1.70 (0.64) | 1.88 (0.66) | 2.35 (1.07) | 2.55 (1.09) |
| Having time to socialize | - | - | 3.33 (1.01) | 3.42 (1.03) | - | - | 3.46 (1.00) | 3.59 (1.01) |
| Not working outside the home | - | - | 1.24 (0.67) | 1.80 (1.27) | - | - | 1.25 (0.66) | 1.55 (1.17) |
| Having strong friendships | 2.77 (0.44) | 2.82 (0.40) | 3.91 (0.93) | 4.20 (0.87) | 2.66 (0.60) | 2.74 (0.58) | 4.14 (0.84) | 4.29 (0.87) |
| Having a part-time career for a limited time-period | - | - | 1.34 (0.75) | 2.12 (1.30) | - | - | 1.30 (0.71) | 2.13 (1.36) |
| Having a part-time career | - | - | 1.31 (0.73) | 1.97 (1.24) | - | - | 1.24 (0.63) | 1.86 (1.18) |

[^5]
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[^0]:    ${ }^{1}$ Some graduate student participants were already parents at the time of the first survey (male $n=8$, female $n=5$ ).

[^1]:    Figure 4. Sex differences in importance of life values among math/science graduate students and top 1 in 10,000 talent search participants in their mid-30s. For all GS $|d|>.22, p<.01$, and for all TS $|d|>.30, p<.01$.

[^2]:    ${ }^{2}$ Of course, these participants could have been happier to begin with, before they became parents. Therefore we examined this possibility among these participants at the time of the mid-20s follow-up and found no systematic effects in a host of indicators indexing emotional well-being on the ACL as well as on measures of self esteem and internal locus of control taken from their time 1 survey (Lubinski et al., 2001). The few significant differences we found favored participants who became parents in the following decade.

[^3]:    Note. A dash indicates that the item was not administered. ${ }^{\text {a }}$ Minimum $n=304$. ${ }^{\mathrm{b}}$ Minimum $n=291$. ${ }^{\mathrm{c}}$ Minimum $n=268$. ${ }^{\mathrm{d}}$ Minimum $n=251$. These items used a 5 -point scale, ranging from 1 (not important) to 5 (extremely important).

[^4]:    Note. A dash indicates that the item was not administered. ${ }^{\text {a }}$ Minimum $n=257$. ${ }^{\mathrm{b}}$ Minimum $n=82 .{ }^{\mathrm{c}}$ Minimum $n=263$. ${ }^{\text {d }}$ Minimum $n=251$. These items used a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree)

[^5]:    475. ${ }^{\text {c }}$ Minimum male $n=223$; minimum female $n=121$. ${ }^{\text {d }}$ Minimum male $n=348$; minimum female $n=174$. These items used a 5 -point scale, ranging from 1 ( not important) to 5 (extremely important).
