CHILD CAREER DIRECTION SURVEY REPORT

"Many things can wait; the child cannot. Now is the time his bones are being formed, his mind is being developed. To him, we cannot say tomorrow, his name is today "

- Gabriela Mistral

All India Survey Report

SANJAY ROY CHOWDHURY, DEBKUMAR MITRA, AYANTIKA PAUL
Gray Matters Consulting

EXECUTIVE SUMMARY:

687 professionals across various organizations in India were surveyed for their factors that had influenced their career decision-making, and the kind of support their children were getting in their career selection process. This report presents and discusses the key findings of the survey.

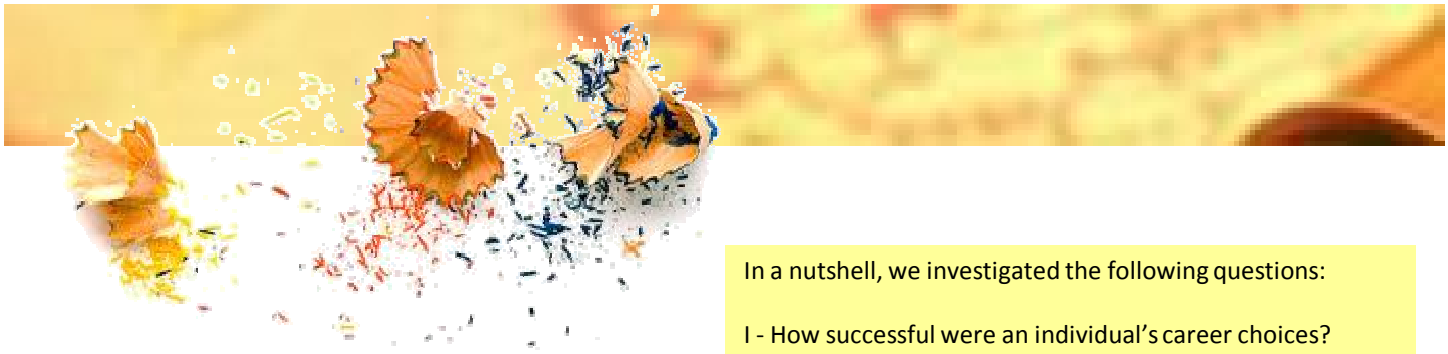
The first section of the report examines the different ways in which today's professionals define and evaluate their career success.

The second section identifies key environment, opportunity and self influencers in career decision-making, and discusses the different levels of future career success associated with each.

In the third section, we have presented different support activities that children have access to in choosing their career directions. A greater part of this section makes recommendations to help children best manage or leverage their career selection influencers in leading successful future careers.

The fourth section considers specific parental attitudes and preferences that can have a great impact on their child's career direction setting. The impact of the parent's age, gender and income on such attitudes and their underlying rationale are explored in depth.

The fifth and last section highlights the key findings of the study and discusses possible causes and inter-linkages. Some ideas for future research and implications for practice are also presented.



SAMPLE DESIGN AND CHARACTERISTICS:

687 professionals participated in this study, 84% of who were male. The sample was roughly normally distributed in age and income. East, North and South India were well represented in the sample; although we had only 2% and 7% participants from Central and Western India, respectively. The participants were selected from a diverse mix of industries; however, their largest concentration was in the IT & ITeS (25%) and manufacturing (30%) industries. Most of these professionals were either graduate (50%) or post graduate (35%). Since the participants' age was quite normally distributed, the age of their children also had a normal range and pattern of spread (from below 12 years to above 21 years).

SURVEY REPORT: INTRODUCTION AND RESEARCH OBJECTIVES:

When we had first planned this project, we wanted to try to decode the career decision making process of children. What are the factors a child considers in making her career choice? Which of them are of more or less importance? Are certain factors responsible for greater career satisfaction among people? We were inspired by some of these questions.

We felt that the process of understanding and analyses cannot all rest in the future; in order to understand the factors behind career choice and career success, we need to have given individuals the process time to make those choices and experience the degree of their success. So, although we were looking for questions related to a child's career selection and success potential, we would have to focus a large part of our analyses on what their parents did to choose their careers and how their decision making affected their later career success.

In a nutshell, we investigated the following questions:

I - How successful were an individual's career choices?

1. What's the most common definition of career success among today's middle to senior professionals?

2. What percentage of these professionals feel they have been 'successful' in their career so far?

II - Which career choice factors led to greater career success?

3. Which of the environment, opportunity and self influencers of career choice have led to greater future career success?

III - At the start of career decision making, what actions can best leverage such career choice influencers?

4. What are the most common support activities that the (indirectly) surveyed child population has access to for capitalizing on or managing such career choice influencers?

5. What are the recommended action plans for the (indirectly) surveyed children to best leverage their career choice influencers?

IV - What factors influence parent attributes that in turn influence their child's career decision making?

The last part of our survey considered specific parental attitudes and preferences that can have a great impact on their child's career direction setting and success. In understanding such parental attributes, the following research questions were of interest to us:

6. What are parents' predominant attitudes and preferences regarding their child's career interests, non traditional preferences, and career planning start timeframe?'

7. How do the parents' age, gender and income influence such attributes?

We took up each question and investigated it with appropriate analytical tools and tests. In the next section, we'll present our key findings from such analyses, and interpret or discuss them.

SECTION 1: DEFINING AND EVALUATING CAREER SUCCESS

How successful were an individual's career choices?
We'll start decomposing the process of career selection to see if we can land on the best decision making model for career success. But before we set off, let's try to clarify our destination: career success. What does that mean? We suspected quite different things for different people. We were right!

What's the most common definition of career success among today's middle to senior professionals?
Most (63%) of the 687 parents surveyed reported Professional Growth and Achievement as their most important career success criterion. The next most critical criterion of career success was achieving the right Person-Career fit, with 28% of the sample voting in its favour. Surprisingly, achieving monetary rewards and organizational or socio-political power was much lower in importance as key criterion in career success for the sample.

The results are summarized in the following table:

Career Success Criterion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Money	28	4.1	4.1	4.1
	P-J Fit	184	26.8	26.8	30.9
	Power (Organizational/Socio Political)	42	6.1	6.1	37.0
	Professional Development	433	63.0	63.0	100.0
	Total	687	100.0	100.0	

So well, we define success differently. But regardless of what our definitions,

What percentage of professionals feel they have been 'successful' in their career so far?
Our findings suggest that people are mostly sanguine and positive about their career success. Most people thought they were at least 'successful' in their career, according to their personal definition of career success (e.g., monetary achievement vs. person-career fit). Take a look at the following table:

Career Satisfaction Index (Recoded)

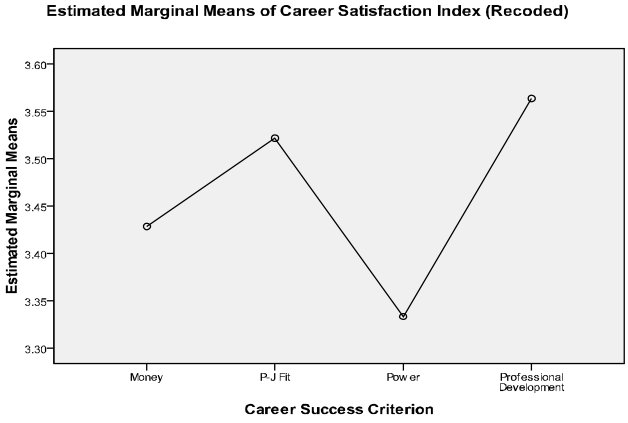
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsuccessful	12	1.7	1.7	1.7
	Somewhat Unsuccessful	41	6.0	6.0	7.7
	Moderately Successful	262	38.1	38.1	45.9
	Successful	313	45.6	45.6	91.4
	Very Successful	59	8.6	8.6	100.0
	Total	687	100.0	100.0	

Are there variations in these statistics in terms of one's personal definition of success? For example, are people who consider monetary achievement as their core career success criterion more likely to consider themselves less successful than people who think achieving a high person-career fit is most important? Let's consider each of the four groups as below.

Career Success Criterion * Career Satisfaction Index (Recoded)								
			Career Satisfaction Index (Recoded)					
			Unsuccessful	Somewhat Unsuccessful	Moderately Successful	Successful	Very Successful	Total
Career Success Criterion	Money	Count	0	3	13	9	3	28
		% within Career Success Criterion	.0%	10.7%	46.4%	32.1%	10.7%	100.0%
		% of Total	.0%	.4%	1.9%	1.3%	.4%	4.1%
	P-J Fit	Count	4	12	68	84	16	184
		% within Career Success Criterion	2.2%	6.5%	37.0%	45.7%	8.7%	100.0%
		% of Total	.6%	1.7%	9.9%	12.2%	2.3%	26.8%
	Power	Count	1	3	21	15	2	42
		% within Career Success Criterion	2.4%	7.1%	50.0%	35.7%	4.8%	100.0%
		% of Total	.1%	.4%	3.1%	2.2%	.3%	6.1%
	Professional Development	Count	7	23	160	205	38	433
		% within Career Success Criterion	1.6%	5.3%	37.0%	47.3%	8.8%	100.0%
		% of Total	1.0%	3.3%	23.3%	29.8%	5.5%	63.0%
Total		Count	12	41	262	313	59	687
		% within Career Success Criterion	1.7%	6.0%	38.1%	45.6%	8.6%	100.0%
		% of Total	1.7%	6.0%	38.1%	45.6%	8.6%	100.0%

The data suggests that the highest proportion of people who consider themselves at least successful in their careers are among those who think achieving Professional Development is their chief Career Success criterion. The second highest proportion of successful or very successful people is among those who define their career success most in terms of a right person-career fit. Groups that consider Power or Monetary Rewards their core career success criterion have lower incidences of successful or very successful people vis-a-vis those that think **person-career fit** or **professional development** is the most critical to their career success. Is this difference significant?

We performed a one way ANOVA test on the data and did not find the differences to be statistically significant. However, the F test does confirm the tendency to find more successful people among those who value person-career fit and professional development the most. The figure below captures this trend:



SECTION 2: KEY CAREER CHOICE INFLUENCERS

Which career choice factors led to greater career success?
We hope this has helped us somewhat to understand which of our values leads to the greatest career success. Now, let us regress some steps in the process, and see what factors triggered our career choices in the first place, before those choices became more or less successful.

A - Environmental influences on career choice:

Our immediate and larger socio-economic environment can have a strong impact on who we want to become and how we go about it. If both of one's parents are doctors, there's a quite higher possibility of the kid wanting to be a doctor herself. If most of one's friends in grades 11 or 12 want to go into telecommunications, the odds are high that he's going to seriously consider, at least for a while, signing up for higher studies in that field.

In our survey, we had asked participants to indicate which one of the four environment factors had had the greatest influence on their career choices: parents' occupations (E1), predominant occupation(s) in the locality where one grew up (E2), observing sibling(s) or role model (E3), and career choices and interests of peers (E4).

Our research question asked:
Which of the environment factors (E1, E2, E3, or E4) that influenced their career choices have led to greater career success?
To answer that question, we ran a multiple regression analysis, regressing the categorical environment factors on the interval scale dependent variable, career success index.
For the environment group of factors, we assigned a base factor which served as the benchmark or reference for comparison. For the Environment group, we chose 'E2: Observing one's siblings/role model' as the base variable.

Our findings support the following ranking of environment factors, arranged in descending order of their estimated career success means:
E1: Parent's Occupations
E4: Peer Career Choices/Interests
E3: Observing one's siblings/role-model
E2(base): Occupations in and around one's local area

It turns out that people who were most influenced by their parent's occupations are the luckiest! They seem to find the greatest success in their careers than those of us who were either guided most by E4 (Peer choices/interests), E3 (Observing siblings/role model) and E2 (Occupations in and around one's local area).

Being influenced by one parents' occupations could have the highest dividends, as our data reveals. 'Peer career choices' lead to the second highest estimated career success index, followed by 'observing one's siblings/role model', and last by 'occupations in and around one's local area'.

However interesting these patterns of differences, are they statistically significant? Not all of them, as it turns out.
We found the (positive) difference between people who had E1 as their key environment factor and those who chose the base variable, E2, as their dominant factor to be significant. All other differences with respect to the base variable E2 (E4 vs. E2, E3 vs. E2) were data patterns without statistical significance.

Thus, in summary:
Career satisfaction tends to be highest for people who have chosen E1 as their dominant self factor, followed by E4, then E3, and lastly, E2. The increase in career satisfaction when one changes the key environment influencer from E2 to E1 is statistically significant. All of the other differences when compared to the base category (E4 vs. E2, E3 vs. E2) are not of significance.

B - Opportunity factors that influence career choice:
We get opportunities that bring us closer to our career choices. We face issues that deflect us from or challenge us to arrive at our true destinations. In some cultures, being a boy can pre-orient one towards certain professions. One might have had an opportunity to work before going to college; that might have influenced her choice of major. Having or not having family money could have affected someone's early career choices.

In our survey, opportunity factors stood for all those possibilities and challenges that came one's way in choosing his or her career. We had asked participants to indicate that opportunity factor that had most shaped his or her career decision making: gender (O1), family socio-economic status (O2), past or ongoing practical work experience at the time of making the career choice (O3), and degree of availability of education/employment options in one's local region (O4).

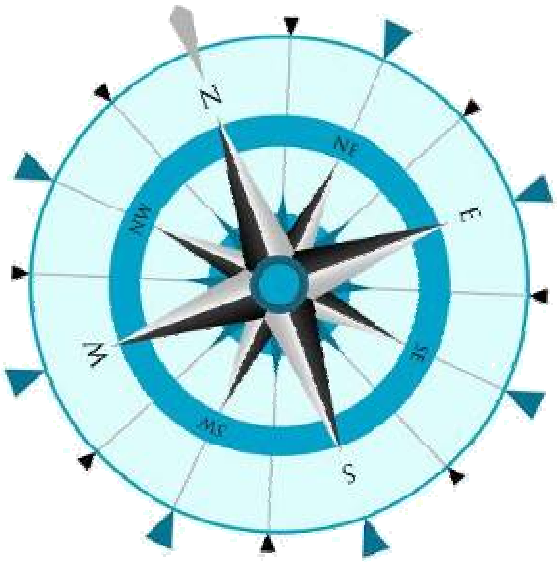
Which of the opportunity factors (O1, O2, O3, or O4) that influenced their career choices have led to greater career success?
The results suggest the following ranking of opportunity factors, arranged in decreasing order of their estimated career satisfaction means:
O3: Past or ongoing work experience at the time of making the career decision
O2: Family SES
O4 (Base): Education/Employment opportunities in and around local area
O1: Gender

People who were most guided by their 'current or past work experience' in making their career selection enjoyed the greatest career success! 'Family SES' scored the second highest career success index, followed first by 'degree of availability of education/employment opportunities in and around one's local area' and last by the individual's 'gender'.

Having or not having family money does play an important role in one future career success, as the data suggests. However, it's promising to see that being guided in career selection by one's gender has the lowest dividends on career success; the pattern somewhat dilutes the importance of gender stereotypes in achieving career success.

We did not find any difference with respect to O4 to be statistically significant. For example, though people who were most guided by gender have lower career satisfaction in comparison to people who considered O4 as their dominant opportunity influencer, the difference is not significant. The same non significance applies to the increase in career satisfaction from changing one's key opportunity factor to O3 from O4, or to O2 from O3.

Thus, in summary:
Career satisfaction tends to be highest for people who have chosen O3 as their dominant self factor, followed by O2, then O4, and lastly, O1. All of these differences when compared to the base category (O3 vs. O4, O2 vs. O4, and O1 vs. O4) are not statistically significant.



C - Self factors that influence career decision-making:

A key influencer in one's career choice is her *knowledge* of what that choice *should* be for her, independent of your environment, opportunities and constraints. This knowledge, in turn, stems out of knowledge of one's *self*: her core interests, skills and talents are, and how she defines her professional purpose and ideology.

Other powerful influencers *within* oneself that impact his career decision making are his initiative in researching about different careers and opportunities, career planning (the act of strategically achieving one's career goals through his talent and professional opportunities), and his determination and resilience to reach your ideal destination. Your academic scores as well as domain knowledge and skill sets at the time of making such choice are key influencers too.

We asked participants to identify the single most important self factor that had made the greatest influence on his or her career selection: self interest awareness and career planning (S1), academic Scores and Achievement (S2), analysis of own capabilities (S3), and motivation for high SES (S4). So,

Which of the self factors (S1, S2, S3, or S4) that influenced their career choices have led to greater career success?

Our analysis reveals the following hierarchy of factors, arranged in descending order of their estimated means of career satisfaction:

S4: Motivation for high SES
S3 (Base): Analysis of own capabilities
S1: Self interest awareness and career planning
S2: Academic Scores and Achievement

People who were most inspired by their 'motivation to attain a high SES' seem to have achieved the greatest career success. People who were most moved by an 'analyses and understanding of their capabilities' have scored the second highest career success, followed successively by groups that chose 'self interest awareness and career planning' and 'academic scores and achievement'.

How significant are these differences?

Our tests show that the difference between S2 and S3 (base factor) is significant. In other words, people who chose S2 as their dominant self factor have significantly lower career satisfaction than those with S3 as their main self influencer. Other differences (S4 vs. S3, S1 vs. S3) are not statistically significant.

Thus, in summary:

Career satisfaction tends to be highest for people who have chosen S4 as their dominant self factor, followed by S3, then S1 and S2. Statistically, the decrease in career satisfaction when the dominant self influencer changes from S3 to S2 is statistically significant. All of the other differences (S4 vs. S3, S1 vs. S3) are not statistically significant.

If you are statistically inclined, you may check the results of the multivariate regression summarized in the following table of parameter estimates:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.452	.071		48.545	.000
	Q4a E1 Parent's Occupations	.199	.079	.108	2.535	.011
	Q4c E3 Observing Sibling/Role Model	.065	.105	.025	.623	.533
	Q4d E4 Peer Career Choices	.123	.077	.068	1.594	.111
	Q5a O1 Parent Gender	-.102	.173	-.023	-.590	.556
	Q5b O2 Family SES	.008	.075	.004	.103	.918
	Q5c O3 Practical Work Experience	.106	.075	.059	1.414	.158
	Q6a S1 Self Awareness & Career Planning	-.024	.092	-.011	-.261	.794
	Q6b S2 Academic Scores	-.248	.082	-.129	-3.030	.003
	Q6d S4 Motivation for High SES	.087	.080	.046	1.088	.277

a. Dependent Variable: Career Success Index (Recoded)

b. Base variables: E2: Occupations in and around one's local area, O4: Education/Employment opportunities in and around local area, S3: Analysis of own capabilities

SECTION 3: LEVERAGING CAREER DECISION INFLUENCERS

At the start of career decision making, what actions can best leverage such career choice influencers?
Knowing which of the environment, opportunity and self influencers leads to the highest career success is not enough. To leverage their potential or fight their limitations, one needs to play them right. So, as the first step from the diagnostic to the proactive, we wanted to understand how the current population was dealing with their set of career choice influencers. And, from there, go a step beyond to identify the gaps between observed and recommended actions.

So at first, we took a look at what was happening.
What are the most common support activities that the surveyed child population has access to capitalize on or manage such career choice influencers?

Let's look at the distribution across key support activities for **environmental influencers:**

CCD Environment Support Criterion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Discussing parent's occupation	239	34.8	34.8	34.8
	Exploring non local occupations	183	26.6	26.6	61.4
	Role model mentorship	84	12.2	12.2	73.7
	Peer discussions	181	26.3	26.3	100.0
	Total	**687**	**100.0**	**100.0**	

The data suggests that children are most exposed to a critical discussion of their parents' occupations as a potent support activity for leveraging or managing their environmental influencers. Initiatives of exploring non-local occupations and peer discussions are the both the next highest in proportion. The lowest proportion of parent-child dues were exposed to 'role model mentorship' as the most critical support activity in the context of environmental influencers.

The nature of this distribution could be driven by availability and convenience. Approaching one's parents for career related discussions could seem easier and more stereotypical than talking to one's peers or looking beyond one's local occupations. And although one could be highly influenced by her role model or older sibling in making his career decision making, he might still take only measured initiative in actively seeking out the role model's or sibling's initiative.

Parents, not peers, siblings, role models or even non-local job exploration, has again emerged as the child's most approached alternative for career choice related guidance.

How are the children dealing with their **opportunities** in making their career choices? The distribution of various activities that support or manage their opportunities is given below:

CCD Opportunity Support Criterion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Discussion of non-traditional careers 3	112	16.3	16.3	16.3
	Parent's exploration of financial alternatives 2	232	33.8	33.8	50.1
	Joint School-Industry Initiatives 1	277	40.3	40.3	90.4
	Vocational training and work experiences 4	66	9.6	9.6	100.0
	Total	687	100.0	100.0	

'Joint school-industry initiatives' in which children get engaged in practical experiences in different specialties appears to be their most common support activity. Parents of many children seem to be exploring 'financial alternatives to support their children's career interests and decisions'; this phenomenon is the second most common type of support the (indirectly) sampled group of children has access to. This is followed 'critical discussions of non traditional careers', with about 16% of the child population indicating that they are most exposed to it. The lowest proportion of children seem to be using 'vocational training and work experiences' to best leverage their opportunities.

Although the child-parent duo values practical work experiences as a potent aid to career decision making, they most access such experiences only when they occur under the child's school's direction. Children do not seem to be as active in seeking out practical learning and exposure supported by vocational institutions. Dealing with financial restrictions in the way of a child's career selection seems to be receiving a lot of attention, with a high proportion of the sample indicating that they consider it the most important support activity in facilitating the child's career decision making.

The child's school (or college or university) and parents seem to the most common stakeholders in making the most out of occupational or financial opportunities to support the child's career selection process.

The distribution of key support activities in the **self** domain reveals intriguing patterns:

CCD Self Support Criterion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Career Planning 2	162	23.6	23.6	23.6
	Understanding impact of academic scores 3	149	21.7	21.7	45.3
	Own capability analysis 1	244	35.5	35.5	80.8
	Choosing priority career values 4	132	19.2	19.2	100.0
	Total	687	100.0	100.0	

The most common self support initiative that a child appears to have the highest exposure to is doing his or her own capability analysis. The second most common of support activity that children are most engaged in is career planning, followed by 'understanding the opportunities, limitations and myths associated with academic scores' and 'prioritizing own career values', in the same order.

Children seem to be more focused on their current capabilities and available repertoire of talent rather than their career goals, available career opportunities and purposeful career planning. More children are focused on critically analyzing the impact of their academic scores rather than identifying what career values are more important to them. The focus is tilted in favour of the available vs. desirable.

So, given the incidence of support activities and their focal areas, the question poses as:

How desirable is this spread of support activities, given the different degrees of career success associated with the key career choice influencers?

The following example captures this argument:

People who were most driven by past or current work experience as an opportunity factors influencing their career choice achieved the highest career success index in their later life. So, we argue that leveraging the factor 'past or current work experience' well pays the highest dividends on career success, and hence must be practiced the most (above all other support activities for the opportunity cluster). However, looking at the distribution of opportunity support activities, we saw that the associated support activity for 'past or current work experience', which is joint school-industry initiatives', has received the lowest attention.

We've now identified a gap in degree of practice of the opportunity support activity 'joint school-industry initiatives'. This is a gap between what's occurring versus what's desirable. Our recommendation would now be to intensify activities related to 'joint school-industry initiatives', so that the surveyed children can move towards higher career success in their later lives.

Therefore, our last research question for this section is:
What are the recommended action plans for the (indirectly) surveyed children to best leverage their career choice influencers?

A - <u>Environment support criteria:</u>

To revise, the ranking of environment factors, arranged in descending order of their career satisfaction indices is given by:

E1: Parent's Occupations
E4: Peer Career Choices/Interests
E3: Observing one's siblings/role-model
E2(base): Occupations in and around one's local area

So, what should the prescribed ranking of environment support criteria should be, given the above hierarchy of environment influencers of career selection? If the ranking of environment factors indicates that the mean career success for people who chose E1 (Parent's occupations) as their dominant environment factor is higher than those who chose E4 (Peer career choices/interests), the proactive components or support criteria corresponding to these factors should also reflect the same order.

In other words, if people who were led most by E1 are experiencing greater career success than those who were led by E4, then E1 seems to be a better bet than E4. Therefore, we should focus more on leveraging E1 than E4 in proactively dealing with our environment in making the right career selection. Thus, to be of the greatest benefit to career decision making, the environment support criteria should have the same ranking as the environment factors arranged in (descending) order of their career success mean estimates. The expected ranking of environment support criteria is thus presented below:

Environment factors	Environment support criteria	Expected Frequency Ranking of Environment Support Criteria (1=Very Frequent...4=Least Frequent)
E1: Parent's Occupations	Discussion of pros and cons of parent's occupations	1
E4: Peer Career Choices/Interests	Peer discussions on career choices and interests	2
E3: Observing one's siblings/role-model	Mentorship by sibling or role model	3
E2(base): Occupations in and around one's local area	Exploring non local occupations	4

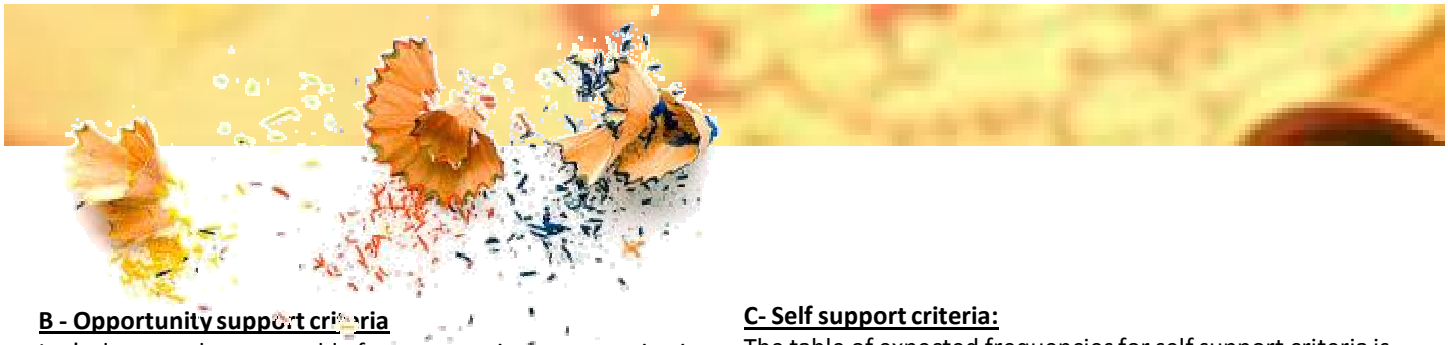
How does this expected ranking (arranged in descending order of importance) of environment support criteria compare with their actual ranking (arranged in order of their frequency)? This should give us the sense of the expected vs. actual frequency of occurrence of each environment support criteria. The following table presents the comparison:

Environment support criteria	Expected frequency ranking	Actual frequency ranking	Gap Estimate (Expected Ranking – Observed Ranking)	Action plan
Discussion of pros and cons of parent's occupations	1	1	0	Maintain
Peer discussions on career choices and interests	2	4	-2	Increase
Mentorship by sibling or role model	3	3	0	Maintain
Exploring non local occupations	4	2	2	Decrease

In the above table, columns 2 and 3 present the corresponding expected and actual frequencies of environment support criteria. The 4th column calculates the gap between the expected and actual or observed frequencies, quantifying any need for change. The last column presents the action plan for each environment support criterion, based on its need for change. If there is no gap between expected and observed frequencies, then we should continue with the current occurrence. If there's a negative gap between expected vs. observed frequencies, we should increase occurrence or frequency of the corresponding support criterion. If the gap is positive, we should reduce the occurrence or frequency of the corresponding support criterion.

The action plan column for environment support criteria for the current population suggests the following prescriptions for better career decision-making of children:

Maintain discussions of the pros and cons of parent's occupations
Maintain opportunities of mentorship by children's role models or siblings
Increase mutual peer discussions of career choices and interests
Decrease explorations of occupations and career choices beyond those of local area



B - Opportunity support criteria

Let's draw up the same table for opportunity support criteria to reveal their expected frequencies:

Opportunity factors	Opportunity support criteria	Expected Frequency Ranking (1=Very Frequent...4=Least Frequent)
Past or ongoing work experience at the time of making the career decision	Joint school-industry initiatives	1
Family SES	Parent's exploration of financial alternatives	2
Education/Employment opportunities in and around local area	Vocational training and work opportunities	3
Gender	Discussion of non-traditional careers	4

C- Self support criteria:

The table of expected frequencies for self support criteria is presented below:

Self factors	Self support criteria	Expected Frequency Ranking of Self Support Criteria (1=Very Frequent...4=Least Frequent)
S4: Motivation for high SES	Choosing priority career values	1
S3: Analysis of own capabilities	Own capability analysis	2
S1: Self awareness and career planning	Self awareness and career planning	3
S2: Academic Scores and Achievement	Understanding impact of academic scores	4

We shall relate them to their observed frequencies and devise their individualized action plans in the manner similar to what we followed for environment support criteria:

Opportunity support criteria	Expected frequency ranking	Actual frequency ranking	Gap Estimate (Expected Ranking – Observed Ranking)	Action plan
Joint school-industry initiatives	1	3	-2	Decrease
Parent's exploration of financial alternatives	2	2	0	Maintain
Vocational training and work opportunities	3	4	-1	Decrease
Discussion of non-traditional careers	4	1	3	Increase

The successive table of individualized action plans for self support criteria is given as below:

Self support criteria	Expected frequency ranking	Actual frequency ranking	Gap Estimate (Expected Ranking – Observed Ranking)	Action plan
Choosing priority career values	1	4	-3	Decrease
Own capability analysis	2	3	-1	Decrease
Self awareness and career planning	3	1	2	Increase
Understanding impact of academic scores	4	2	2	Increase

The action plan column for opportunity support criteria for the current population suggests the following prescriptions for better career decision-making of children:

Decrease activities that make use of joint school-industry initiatives

Maintain current level of activities involving parents' exploration of financial alternatives for supporting their child's career decisions

Decrease activities that make use of vocational training and work opportunities

Increase discussions on non traditional and non mainstream careers

Based on the above analysis, the following recommendations are made for the current population to better leverage self factors in the process of the child's decision-making:

Decrease activities involving choosing career value priorities

Decrease activities involving analyses of own capabilities

Increase activities involving career planning and self discovery

Increase activities involving understanding of the impact (opportunities and limitations) of academic scores

SECTION 4: PARENT ATTITUDES IN SUPPORTING CHILD'S CAREER DECISION-MAKING

What are specific attitudes and preferences among parents in supporting their child's career decision-making, and what, in turn, influences such parent attributes?
We wanted to see move beyond the structure of our career decision making model, and critically consider a parent's pivotal role in it. There are certain attitudes and preferences a parent has that can highly influence their child's career choice and future success. We identified them as a parent's:
Openness towards her child's non traditional career choices,
Relative preference for the child's independent career interests vs. the parent's own perceptions of career realities vs. societal expectations and norms, and
Preferred start time frame for the child's career selection process

Our hypotheses is that greater openness towards non traditional career interests, preference towards earlier start times for the child's career decision-making, and greater weightage to the child's independent career interests lead to more successful career choices for the child. We didn't test these hypotheses, mostly because we still do not have the career success measures for these children (because, of course, most of them have yet to 'start' their careers), and in part because that was not our research interest here. Rather, what we were interested in is on the spread of and influences upon these parent attributes.

What are parents' predominant attitudes and preferences regarding their child's career interests, non traditional preferences, and career planning start timeframe?
How do the parent's age, gender and income influence such attributes?

CHILD'S CAREER PLANNING START TIME:
How many parents think their child should start planning for his or her career from grades 7 – 8 vs. those who feel they should start after completing graduation? Constructing the frequency distribution of parents across grades reveals the following patterns:

Qn 10 Child's Career Planning Start Time

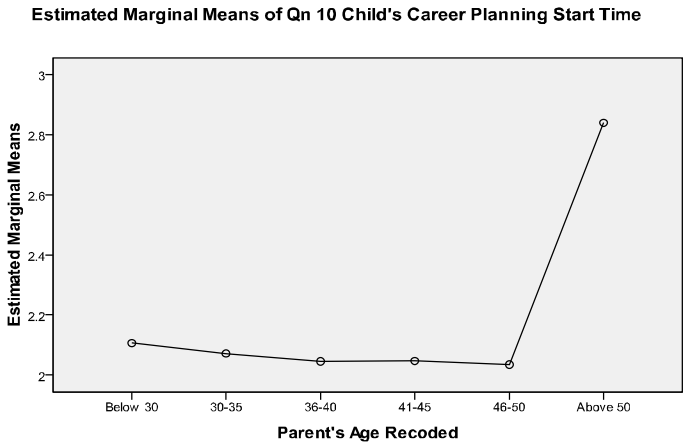
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Grades 7-8	173	25.2	25.2	25.2
	Grades 9-10	309	45.0	45.0	70.2
	Grades 11-12	145	21.1	21.1	91.3
	During and after college	53	7.7	7.7	99.0
	During and after post-graduation studies	7	1.0	1.0	100.0
	Total	687	100.0	100.0	

Most parents believe grades 9 to 10 to be the prime time for their child to start the process of career planning. The second most common chosen timeline for starting their child's career planning is even earlier, grades 7 to 8. Few parents believe their child should wait until doing or completing college to start the process, with a miniscule amount of parents feeling that the right time for their children to start thinking about their careers is during or after their post graduation studies. Clearly, the data reveals that parents are in favour of starting the process of their child's career planning right from school rather than waiting until studying in college or university.
•Do certain attributes related to parents influence such preferences? Consider the following questions:
•Do younger parents want to start planning for their children's career from earlier on?
•Does a parent's gender have a significant impact on his or her eagerness to start planning for their children's career from earlier on than mothers?
•Or, do fathers want to start planning for their children's career from earlier on than mothers?
•Are richer parents less eager to start planning for their children's career from earlier on?

Let's explore answers to each of the above questions one by one.

A – 1. IMPACT of AGE on CAREER PLANNING START TIME
The data reveals that younger parents are likely to want their child's career planning to begin significantly earlier on than older parents. In other words, the parent's age does have a significant impact on their preferred career planning start time for their child. Still, let us examine the relationship between these 2 variables at a deeper level.

The graph below summarises the statistically significant relationship between a parent's age and his/her preferred start time for the child's career planning:



Covariates appearing in the model are evaluated at the following values: Income Recoded = 2.50

An interesting pattern in the above figure is although the slope of estimated marginal means of career planning start time and parent's age shows a slight downward slope from below 30 to 50 years of age, the graph spikes up drastically for parents above 50. What happens if we eliminate the above 50 category from the parent's age variable? As we already could have guessed, the relationship ceases to be significant, and changes its direction. Without the above 50 age category, a parent's age has a slightly negative (although not statistically significant) relationship with desired child's career planning start time.

Thus, considered holistically, we can summarize the relationship between the parent's age and his/her desired start time for the child's career planning as below:
Until the age of 50, there is no significant relationship between a parent's age and his/her desired child career planning start time. Beyond 50, the older a parent is, the later he's likely to want the child's career planning process to begin.

A – 2. IMPACT of PARENT'S INCOME on CAREER PLANNING START TIME:

We found a negative direction in the relationship between the parent's income and his/her desired start time for the child's career planning process. In other words, the data seemed to indicate that richer parents seem to want to start planning for their children earlier. However, this pattern was not found to be statistically significant. Thus, we can summarize the relationship between parent's income and their desired start time for child's career planning as below:

Parent's income is statistically unrelated to the time they'd like for the process of career planning to begin for their child.

A – 3. IMPACT OF GENDER ON DESIRED START TIME FOR CHILD'S CAREER PLANNING PROCESS:
Like income, the relationship between gender and desired start time for the child's career planning process is not significant. Although the data reveals a negative relationship pattern, with males tending to want to delay the process of their child's career planning, the differences between the sexes are not significant.

We used the univariate ANOVA model with categorical factors and continuous covariates to investigate such influences. The data table that summarizes the overall results is below:

Tests of Between-Subjects Effects

Dependent Variable:Qn 10 Child's Career Planning Start Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	29.040[a]	7	4.149	5.125	.000
Intercept	681.941	1	681.941	842.357	.000
Parent_Age_Recoded	27.406	5	5.481	6.771	.000
Gender_Rec	.781	1	.781	.965	.326
Income_Recoded	.372	1	.372	.459	.498
Error	549.693	679	.810		
Total	3737.000	687			
Corrected Total	578.734	686			

a. R Squared = .050 (Adjusted R Squared = .040)

PARENT'S PRIORITY VALUES IN SUPPORTING THE CHILD'S CAREER DECISION-MAKING:

We investigated the impact of the parent's age, gender and income on the parent's priority values in supporting the child's career decision-making process. Specifically, we wanted to examine answers to the following questions:

Are younger parents more open to their child's independent career passion/interests vis-a-vis their own perceptions of career realities or societal pressures?

Does a parent's gender have a significant impact on his or her openness to their child's independent career passion/interests vis-a-vis their own perceptions of career realities or societal pressures?

Or, are fathers likely to be more open than mothers to their child's independent career passion/interests (vis-a-vis their own perceptions of career realities or societal pressures)?
Are richer parents more open to their child's independent career passion/interests vis-a-vis their own perceptions of career realities or societal pressures?

B – 1. IMPACT of PARENT'S AGE on PARENT'S DECISION-MAKING PRIORITIES for the CHILD'S CAREER

The data reveals a pattern that older parents tend to prefer their child's interests vs. parent's professional perceptions vs. societal expectations, in the same order. In other words, while supporting their child's decision-making process, older parents are likely to place the highest value on their children's interests, followed first by their own perceptions of career/professional realities, and last by societal expectations and norms. But are these differences significant? No, say more advanced statistical tests. Thus, in summary:
Parent's age does not have a significant impact on his/her decision-making priorities for the child's career. Thus, older people are not likely to be predisposed towards certain specific factors (e.g., child's career interests, societal expectations and norms, parent's perceptions of career/professional realities) in supporting their children through their career decision-making process.

B – 2. IMPACT of PARENT'S GENDER on PARENT'S DECISION-MAKING PRIORITIES for the CHILD'S CAREER

The data reveals that mothers are predisposed towards societal perceptions vs. their own perceptions of professional/career realities vs. their child's career interests in supporting their child's career decision making process. However, these gender differences have not been found to be significant. Therefore, in summary:

Gender does not exert a significant influence on the parents' priority values in supporting their children's career selection process. In other words, mothers are not more likely to be predisposed towards certain specific factors (e.g., child's interests vs. societal expectations) in supporting their child's career decision-making.

B – 3. IMPACT of PARENT'S INCOME on PARENT'S DECISION-MAKING PRIORITIES for the CHILD'S CAREER

Richer parents appear to prefer their child's interests over their professional perceptions over societal expectations. Are any of these differences significant? Advanced tests revealed some significant patterns. While the potential preference of richer parents for their child's interests over their own career/professional perceptions is not significant, their (richer parents) preference of their child's interests vs. societal expectations *is.* In summary,

Richer parents are more likely (than poorer parents) to be predisposed towards their child's interests vis-a-vis societal expectations in supporting their children through their career selection process.

We had performed a multinomial logistic regression to investigate the data patterns. The table summarizing the key outcomes of our analyses is as below:

Parameter Estimates

11. Parent's CCD Priority[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Parent's Professional Perceptions	Intercept	-1.893	.390	23.512	1	.000			
	Parent_Age_Recoded	-.005	.083	.004	1	.951	.995	.845	1.172
	Income_Recoded	-.003	.071	.002	1	.967	.997	.867	1.147
	[Gender_Rec=.00]	.188	.312	.364	1	.546	1.207	.655	2.226
	[Gender_Rec=1.00]	0[b]	.	.	0	.	.	.	.
Societal Expectations	Intercept	-2.169	.969	5.011	1	.025			
	Parent_Age_Recoded	-.257	.219	1.377	1	.241	.773	.504	1.188
	Income_Recoded	-.513	.280	3.359	1	.067	.599	.346	1.036
	[Gender_Rec=.00]	.280	.780	.129	1	.720	1.323	.287	6.095
	[Gender_Rec=1.00]	0[b]	.	.	0	.	.	.	.

a. The reference category is: Child's Interests.

b. This parameter is set to zero because it is redundant.

PARENT'S OPENNESS TO NON TRADITIONAL CAREERS

Can the parent's age, gender and income meaningfully explain a parent's openness to non traditional careers? In particular, we examined answers to the following questions:

Are younger parents more open to non-traditional career choices of their children?

Does a parent's gender have a significant impact on his or her openness to non-traditional career choices of their children?

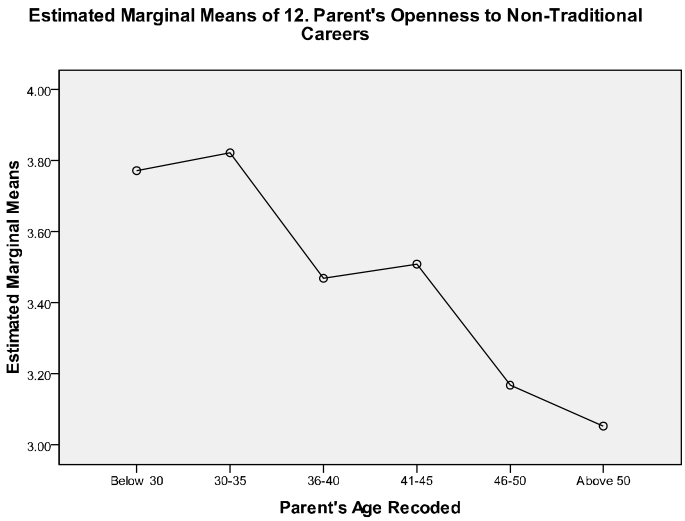
Or, are fathers more open than mothers to non-traditional career choices of their children?

Are richer parents more open to non-traditional career choices of their children?

C – 1. IMPACT OF PARENT'S AGE ON PARENT'S OPENNESS TO NON TRADITIONAL CAREERS

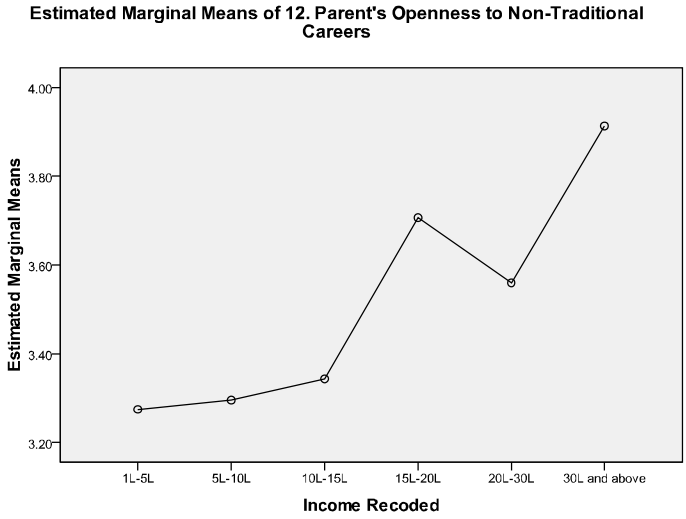
The data pattern shows that a parent's openness to non traditional careers decreases with increasing parent's age. More advanced tests reveal a high statistical significance for such differences. In other words, younger parents are likely to be significantly more open to non traditional career choices than older parents.

The relationship between parent's age and his/her openness to non traditional careers is presented in the graph below:



C – 2. IMPACT OF PARENT'S INCOME ON PARENT'S OPENNESS TO NON TRADITIONAL CAREERS

We also found a significant positive relationship between a parent's income and his/her openness towards non-traditional careers. In other words, richer parents are likely to be significantly more open to non traditional career choices of their children. The graph below presents this relationship:



C – 3. IMPACT OF PARENT'S GENDER ON PARENT'S OPENNESS TO NON TRADITIONAL CAREERS

Although the data shows a slight tendency for mothers to be more open to non traditional career choices of their children, statistical tests do not confirm the relationship to be significant. So, we can say that the parent's gender does not seem to have a significant impact on openness to non traditional career choices of their children. Mothers are not more likely than fathers to be more or less open to their children's non traditional career choices.

We had investigated this sub section of our study using a univariate ANOVA model with fixed factors and continuous covariates. The results of the above discussion are summarized below:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.700	.133		27.901	.000		
	Gender Recoded	.028	.123	.009	.230	.818	.981	1.019
	Parent's Age Recoded	-.151	.034	-.168	-4.382	.000	.953	1.050
	Income Recoded	.104	.029	.134	3.533	.000	.970	1.030

a. Dependent Variable: 12. Parent's Openness to Non-Traditional Careers

SECTION 5: CONCLUSION

Key findings and Insights; Implications for future research and practice

Key Findings and Insights:

For most of the surveyed professionals, career success meant "Professional Growth and Achievement" or "Right person-career fit". Monetary achievement or power were regarded far less important for career success.

In an era of economic growth, multiple career options and rich professional development, job content and professional growth are key career success values. It could be that a lot of the surveyed professionals were past a certain point in income and power, and as such, did not feel that money or stature needed to be pivotal descriptors of career success.

Most people felt they were successful in their careers. However, individuals who defined career success in terms of their professional development or person-career fit perceived themselves more successful, on an average, than people who identified career success with high income or power.

Thus, not only are most professionals defining career success in terms of professional growth, development and the right job fit, but they're also most likely *feeling* more successful in their careers. This could mean that incidences of greater person-career fit and professional development were more common than those of higher income and power. Or, it might be indicative of a deeper psychological phenomenon: people who set success standards in terms of their job fit and professional expertise feel more easily satisfied and fulfilled than those who identify more with money or stature.

In the domain of one's environment and surroundings, people who were most influenced by their 'parent's occupations' experienced the highest career success, followed successively by groups driven by 'peer career interests', 'role models' and 'local region occupations'. However, differences in future career success were significant only between groups that chose parent's occupations and local region occupations. Being guided by one's parents tends to have higher dividends in later career success than being led by peers, role models or local region occupations. Thus, parents have a much larger scope to influence their children's career decision making by the nature and success track record of their (parents') occupations. Although relative differences vis-a-vis the peer or role model influences are not significant, such parent influences have significantly risen over the impact of local region occupations in the child's later career success. So, if your child is asked to choose her career guidepost between the 'occupational diversity in her local region' and her 'deeper understanding of her parents' professions', she's likely to profit more from the latter.

In the domain of the individual's opportunities, people who were driven most by past or current work experience at the time of making their career selection landed up with the greatest career success, followed consecutively by groups driven by family SES, education/employment opportunities in local area, and gender. However, these differences are not significant.

Opportunities that come in the form of work experience and practical exposure are one's best bet for later career success. If your child has had opportunities in terms of an enriching past work experience, a stereotypical gender vis-a-vis his career interests, multiple education and employment opportunities in his local area, and a high family socioeconomic status, he's likely to be served best in later career success if he's most influenced by the work experience. However, since all of these opportunities have an important role to play in his decision making, our studies did not indicate the associated career success differentials to be significant. All opportunity influencers in career decision-making lead to the same level of future career success.

In the self domain, people most driven by their 'motivation for high SES' during the career decision making phase achieved the highest future career success, followed successively by groups that were most led by their 'analysis of own capabilities', 'self interest awareness and career planning', and 'academic scores and achievement'. People most influenced by 'motivation for high SES' achieved significantly higher career success than those driven by 'analysis of own capabilities'; other differences in career success among factors were not statistically significant.

When starting out in one's career, being guided by one's degree of motivation for a high SES has highest returns. If your child is clear of that his career success motivation lies in high income vs. career fit right at the time of career decision-making, he's likely to land in a future career that *he* would find the most successful. Being led by his understanding of own capabilities, strengths and development needs has significantly lower returns on future career success. Being led by a clear understanding of one's career success motivators is more important than one's understanding of capabilities, career interests, impact of academic scores, and one's career planning.

To best leverage environment factors influencing a child's career choice, we have recommended the following action prescription for the surveyed population:

Maintain discussions of the pros and cons of parent's occupations

Maintain opportunities of mentorship by children's role models or siblings

Increase mutual peer discussions of career choices and interests

Decrease explorations of occupations and career choices beyond those of local area

We found that exploration of non local occupations do not always lead to the right career choices, that is choices that bring higher career success. As such, it is advisable to tone down the surveyed children focus on looking beyond the limits of one's local occupations. Rather, it is advisable to have deeper discussions with one's peers on their career interests, and take such preferences and rationale more into account while choosing one's career. The data clearly suggests more proactive discussions in the career decision making phase with people in close access – parents, peers, siblings, and role models – can play a more important role in future career success than less interactive, research based explorations of alternative, non local occupations.

To make the best use of the opportunity factors influencing the child's career selection process, we have the following suggestions for the sampled parent-child groups:

Decrease activities that make use of joint school-industry initiatives

Maintain current level of activities involving parents' exploration of financial alternatives for supporting their child's career decisions

Decrease activities that make use of vocational training and work opportunities

Increase discussions on non traditional and non mainstream careers

A lot is already being done in terms of giving children practical exposure in different career specialties. Although it provides them with some knowledge of specific professions and their field realities, what is also needed is a deeper discussion of the benefits and challenges of different occupations. Again, career decision making seems to respond positively to critical discussions and analyses. So, our study points at the merits of increasing conversations with children about non traditional/mainstream careers.

To best capitalize on the self factors that influence a child's career direction, we recommend the following for the surveyed children:

Decrease activities involving choosing career value priorities

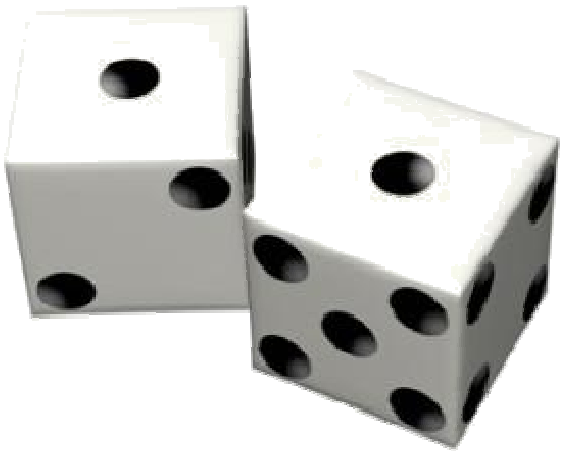
Decrease activities involving analyses of own capabilities

Increase activities involving career planning and self discovery

Increase activities involving understanding of the impact (opportunities and limitations) of academic scores

It's not just enough to have an understanding of one's career success values at a high level – the child should engage himself more on knowing what specific careers, disciplines and jobs capture those values for him. The need seems to take a more specific approach to career related self awareness and get more proactive about planning the child's steps towards his career goals. It's also important for the children obtain a clearer understanding of the impact of academic scores on potential career choices: the genuine strengths, constraints as well as the myths associated with their academic scores for entry into different careers.

The parent's income or gender is unrelated to his or her preferred start time for the child's career planning. The parent's age, however, has a quasi significant relationship with the desired child career planning start time. Although there's no relationship between the two variables until the parent's age of 50, beyond 50, the older the parent is, the later he's likely to want the child's career planning process to begin.
The parent's age or gender does not have significant impact on his or her preference towards the child's independent interests vs. parent's perceptions vs. societal expectations in supporting the child's career decision making. However, richer people are more likely to be predisposed towards their child's interests vis-a-vis societal expectations in this process.
Younger and richer are likely to be more open towards non traditional (mainstream) career choices of their children. The parent's gender does not have any significant impact on such openness.
Mothers and fathers are surprisingly alike in some of the key parental attitudes that can impact the quality of support the child has during his career direction setting. Richer parents feel more liberated and secure to remain more open to their child's independent interests during this process, even if such interests are non traditional. Younger parents seem to do better in providing a more open, liberal support to their children in choosing non mainstream careers.



Implications for future research:

Are people who think of career success in terms of high person-job fit or professional development more easily or quickly satisfied in their success standards than people who define such standards through monetary achievement or power? Such studies of mediators into the relationship between success descriptors and degree of success can lend valuable insight into the deeper motivational process of career decision making and success evaluation.

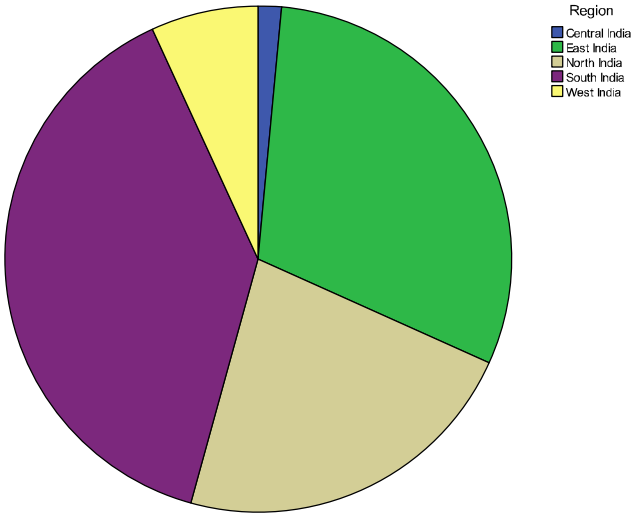
We wonder if there are mediating variables in the relationship between key decision-making influencer and later career success. For example, people who are guided by their parent's occupations most as an environment influencer in the process of their career direction setting may have different perceptive parameters for success than those who were most driven by any other environment influencer. Studies with such research objectives can clarify distinct decision-making styles among children, and suggest ways to capitalize on such styles in leading successful careers.

It would also be interesting to investigate inter-group variations in people's likely choice of the greatest environmental, opportunity and self influencers during the phase of their career decision making. Group differences can be driven by region, gender and income. Career decision making practice can also benefit from knowing whether people of different regional cultures, income status and gender feel more or less successful in future if they've been driven by the same decision-making factors.
We remain interested in knowing if having a parent who's open towards non traditional careers, values her child's career interests above her own perceptions of career realities or societal norms, and favours an early start for her child's career direction setting, does lead a child to greater career success.
Future research can also focus on how differences in parent support activities attributable to income or age can be effectively managed to reach a high standard of future career success of their children.

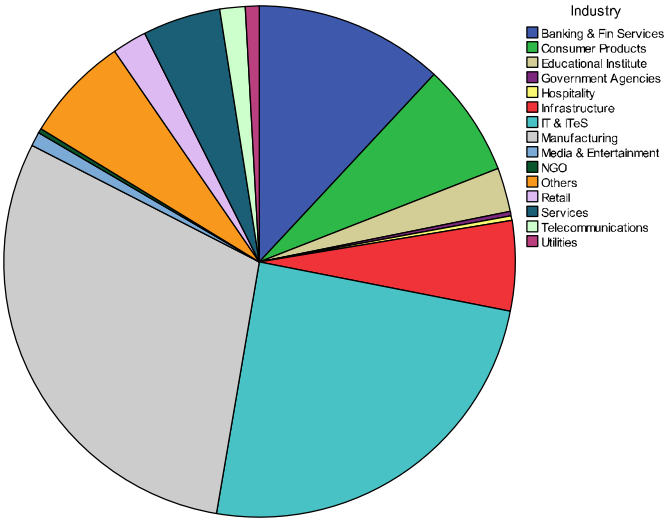
APPENDICES

A – Sample Characteristics

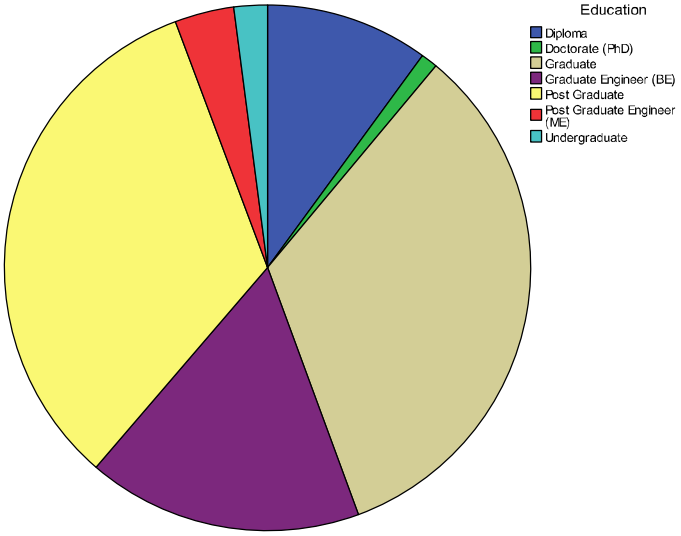
A -1. Sample distribution across Regions



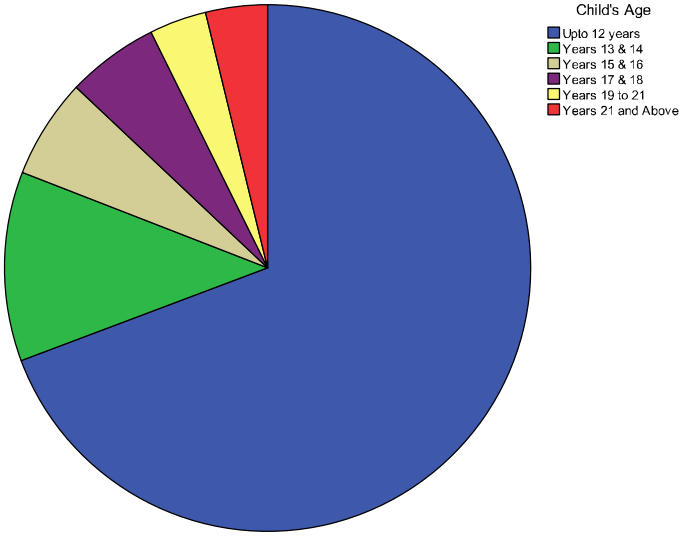
A – 2. Sample distribution across industries



A -3. Sample distribution across Education

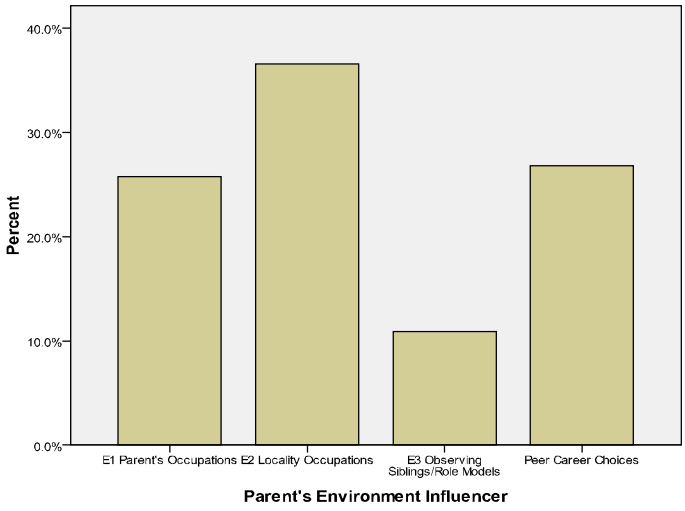


A – 4. Sample distribution across Child's Age

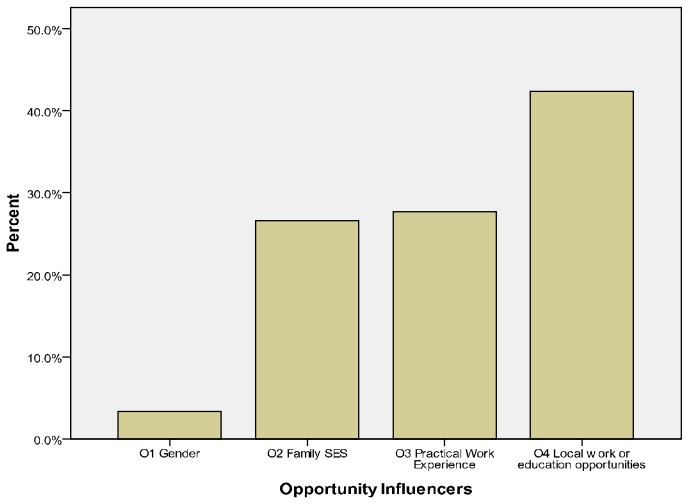


B – Sample distribution across key career decision influencers

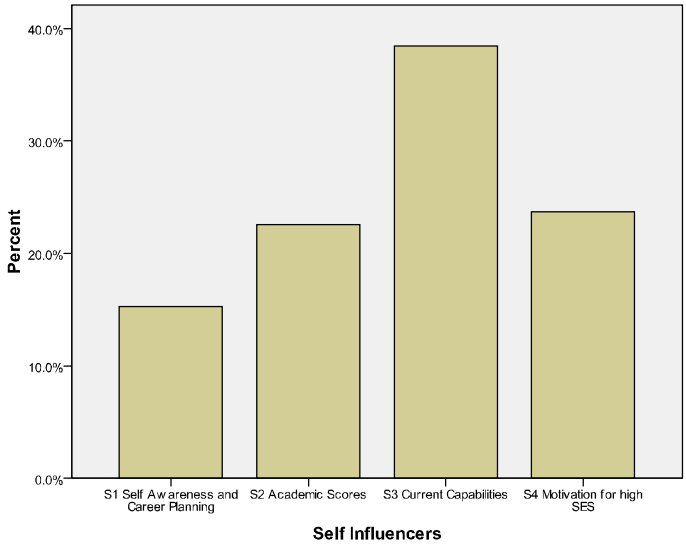
B – 1. Sample distribution across key environment influencers

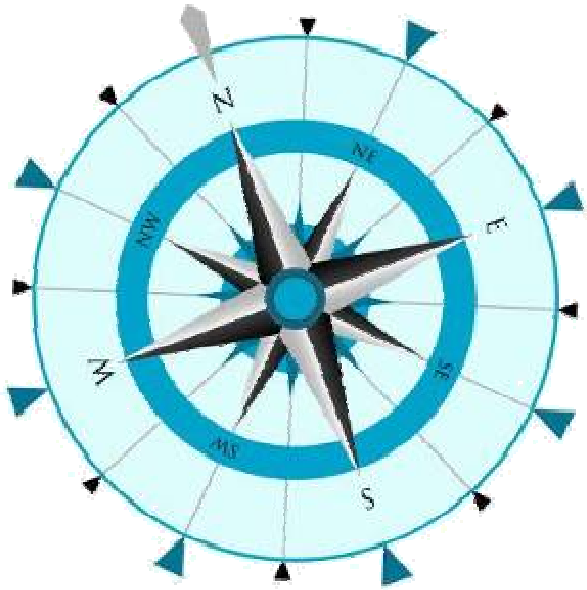


B – 2. Sample distribution across key opportunity influencers



B – 3. Sample distribution across key self influencers





Principal Investigators – Ayantika Paul, Senior Consultant, Gray Matters ; Debkumar Mitra, CEO – Education & Knowledge Services, Gray Matters ; Sanjay Roy Chowdhury, Managing Director, Gray Matters