

Transitions Longitudinal Study

4th Annual Report to the Ministry of
Training, Colleges and Universities

June 2008

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ACKNOWLEDGEMENTS

The *Transitions* longitudinal study exists only because of the work of the Learning Opportunities Task Force. Between 1998 and 2002, LOTF revolutionized services and programs for students with learning disabilities at ten post-secondary pilot institutions. The core of the pilot programs has since been replicated at all colleges and universities in Ontario in the form of the Enhanced Services Program. As such, the legacy of LOTF exists in the fact that Ontario provides the most comprehensive support for post-secondary students with learning disabilities in the world. *Transitions* will help to test the efficacy of this statement as the study unfolds over the next decade.

The province of Ontario owes a debt of gratitude to Dr. Bette Stephenson, who was a passionate and active Chairman to the task force. Great expertise and commitment was exemplified by Eva Nichols, who acted as Senior Consultant to the Chair.

This acknowledgement would not be complete without paying tribute to two other individuals who served LOTF. Bonnie Tiffin was a capable Executive Coordinator for the Richmond Hill office, and Dr. Laura Weintraub was an impassioned consultant to LOTF until her untimely death in January, 2004.

EXECUTIVE SUMMARY

The most exciting aspect of following the progress of the *Transitions* cohort into the fourth year of this 10-year longitudinal study is being able to reiterate the following bland and yet startling observation: *Transitions participants are generally graduating, working, living and thriving as successfully as the general population of a similar age and education.*

Perhaps this research observation should not be regarded as startling. After all, in its final report based on four years of pilot expertise and extensive research, the Learning Opportunities Task Force's (LOTF) primary finding was this: *Students with learning disabilities are as able to succeed in post-secondary education as their non-disabled peers, provided that, their elementary and secondary years were properly supported, their transitions into post-secondary education was appropriately facilitated, with appropriate supports offered, and the students choose to use them.*

While LOTF's research finding speaks to the potential for success, the *Transitions* observation attests to the application of potential and the realization of success in the very competitive real world. In its final report in 2002, LOTF was confident – based on its research findings – that it had favorably changed the landscape for persons with learning disabilities. In Ontario, colleges and universities routinely accommodate, educate and graduate large and increasing numbers of students with learning disabilities. And research shows that post-secondary education appropriately applied is the best indicator of success in the labour/career market. Still, at the onset of *Transitions* the question remained: does this assumption – however it is supported by evidence in the general population – hold true for graduates with learning disabilities?

This question was so powerfully in the minds of the LOTF researchers that *Transitions* was launched a full two years after the cessation of LOTF programs in order to investigate the following primary research question:

Did the post-secondary pilot supports accommodate a student's learning disability in a manner specific to the educational environment, or did the supports teach transferable skills and personal resiliency in a way that allows for former pilot students to take control of and change their own lives?

Neither LOTF nor *Transitions* has ever taken for granted that the completion of post-secondary education ensures success with a career, and in life. Such a presumption would be unwise in the general population, and would be folly among a learning disabled (LD) population, given their collective difficulties and disadvantages in the very recent past.

In 2007, LDAC released a comprehensive report outlining many serious challenges faced by the LD population, including the possibility of difficulties with school, employment and career, and high levels of distress, depression, anxiety disorders and poorer physical health than the general population (“Putting a Canadian Face on Learning Disabilities,” www.pacfold.ca, March 2007).

In April 2008, *Transitions* was invited to present at the World Summit on Learning Disabilities. At this very powerful Summit we were again confronted with the reality of difficult problems facing people with learning disabilities in Canada today. However, while we acknowledge that our *Transitions* cohort is not representative of the learning disability population, their success and the elements that contributed to their success may be worth noting. Though *Transitions* Trends will not become research findings until the end of the 10-year study, it is our contention that there exists a much larger LD population capable of post-secondary education and all its accruals of success than is currently attending – even taking into consideration the expanding number of LD students that institutions are now accommodating. We simply will not know their potential for success until children with learning disabilities have universal early identification and assessment, are properly supported from primary through to post-secondary education, and as a result are sufficiently motivated to do the hard work that realizing potential requires. With this thought in mind, let's take a look at the 2007 *Transitions* Trends profile:

The 2007 profile of *Transitions* Trends:

***Transitions* Trend #1: Participants place a high value on post-secondary education. (Continuing Trend)**

Consistent with the high percentage in previous years, 30% of *Transitions* participants are still enrolled in a post-secondary program. As well, 52% of *Transitions* graduates plan to continue in a post-secondary program in the future.

***Transitions* Trend #2: *Transitions* participants have a higher retention rate than the general population in post-secondary education. (Continuing Trend)**

In post-secondary education, retention rate is considered to be one of the most important benchmarks of institutional success. Last year, we noted that the *Transitions* cohort retention rate was 10%, markedly lower than the rate of 15% in the general population. In 2007, the *Transitions* retention rate is an impressive 9%.

***Transitions* Trend #3: *Transitions* PSE Leavers cite inability to pass required courses as the most common reason for not graduating. (Continuing Trend)**

In 2006, eight participants left their program without graduating compared to seven in 2007. Though this is not a large number, being able to pass required courses was an LOTF benchmark for success, and consequently we maintain Trend # 3 for 2007.

***Transitions* Trend #4: *Transitions* participants combine post-secondary education and work reasonably well. (Continuing Trend)**

In 2007, 24 (62%) of the participants who are currently in school combine study and work. Thirteen participants (33%) combine school and volunteer work. Incredibly, in 2007 there are nine participants who manage to combine education, paid work and volunteer work.

***Transitions* Trend #5: A high percentage of participants are living with their parents. (Continuing Trend)**

Though the percentage of participants living at home is dropping, at 29% Trend # 5 remains, as it is higher than the general population figure of 20% for people of a similar age. Still, this figure is lower than the 36.2 % reported in the LDAC report for adults with learning disabilities of a similar age.

***Transitions* Trend #6: Financial concerns are impacting on *Transitions* participants' life decisions. (Continuing Trend)**

In 2007, 54 of 119 (45%) participants reported being in debt from student loans. Also, the debt load over \$20,000 is increasing rather than decreasing, with 43 (80%) of participants in debt indicating that it has a negative effect on their lives.

***Transitions* Trend #7: The majority of *Transitions* participants, upon graduation, feel prepared to seek employment. (Continuing Trend)**

In 2006 and 2007 we asked participants not currently studying and who had graduated if they felt prepared to seek employment. In both years 75% of participants felt prepared to seek employment.

***Transitions* Trend #8: *Transitions* participants have lower salaries and are under-employed compared to the general population. (Continuing Trend)**

Though both the number of *Transitions* participants working full-time and their salaries have risen this year, we have not yet quite equaled the general population, our benchmark for success. The median earning for university graduates two years after graduation is \$39,000, and \$31,200 for college graduates. Given *Transitions* progress to date, we anticipate that we may be able to eliminate this Trend before the end of the study. It should be noted that while the information regarding median earnings for university and college graduates is taken two years after graduation, the majority of our *Transitions* participants have been employed for a shorter period of time.

***Transitions* Trend #9: Compared to other Ontario residents aged 22-29 with learning disabilities, *Transitions* participants have a high rate of employment and good salaries. (Continuing Trend)**

The LDAC report notes that among Ontario residents with learning disabilities, aged 22-29, 41.2% are unemployed, and 26.3% only earn between \$1-9999 annually. Among the *Transitions* cohort, 83% of employed participants are earning \$20,000 or more.

***Transitions* Trend #10: PSE Leavers employed full-time are generally earning salaries that are comparable to graduates in the general population. (Continuing Trend)**

There were only 11 PSE Leavers in 2007, which resulted in our highest retention rate of the study. Among the six PSE Leavers working full-time, salaries have dropped somewhat overall, though the study's highest wage earner is in this group. We hesitantly confirm Trend #10 for this year, though if salaries do not increase it will be the last.

***Transitions* Trend #11: Field of study likely influences low salaries of *Transitions* participants. (Continuing Trend)**

Our *Transitions* cohort has often chosen post-secondary programs in the Arts and Social Sciences, whose average annual earnings are lower than the earnings in professional programs. For example, the average salary six months after graduation for a student with a Bachelor of Arts degree in Ontario was \$32,249, and for a college arts graduate \$27,237. In comparison, the average salary for an architecture or engineering graduate was \$51,540 for university graduates and \$38,000 for college graduates. (OUGS and 2001-2002 College Graduates)

***Transitions* Trend #12: Female *Transitions* graduates are more likely to experience high rates of under-employment than male participants. (Ending Trend)**

In 2005, we reported that 19% of female and 7% of male graduates were under-employed, and in 2006 that figure was 8% for females and 4% for males. In 2007, there are only two females and three males under-employed, and as a consequence we are happy to report that this trend has ended.

***Transitions* Trend #13: *Transitions* participants have a high rate of unemployment compared to the general population. (Ending Trend)**

In our *First Annual Report*, we noted that 15% of *Transitions* participants were unemployed. In the *Second Annual Report*, that figure was 10%, and in the *Third Annual Report*, 9.5%. In 2007, we are pleased to report that we have reached an unemployment rate of 5%, lower than the general population rate of 7%.

***Transitions* Trend #14: *Transitions* participants place great emphasis on educational and career goals while social goals remain relatively low. (Continuing Trend)**

In our life goals category, we asked participants: "What kind of goals other than career do you wish to achieve in the near future?" Consistent with the last two years, 71 (59%) participants responded that they wish to travel, 66 (55%) chose buy property, 59 (49%) would like to be debt-free, 50 (42%) chose the answer get married, 47 (39%) chose start a family, and 40 (33%) chose have a steady relationship.

***Transitions* Trend #15: A high number of *Transitions* participants engage in volunteer work. (Continuing Trend)**

In 2006, we found that 54 participants (38%) did volunteer work on a regular basis, and in 2007, 41 participants (34%) have indicated the same.

***Transitions* Trend #16: A high number of *Transitions* participants engage in physical activity. (Continuing Trend)**

In both 2006 and 2007, 63% of participants indicated that they engage in physical activity on a regular basis. That a majority of *Transitions* participants exercise on a regular basis is impressive given that in the general population the percentage is approximately 30%.

***Transitions* Trend #17: Participants appear to be resilient in social relationships. (Continuing Trend)**

Last year, 59% of participants reported being satisfied or very satisfied with their friendships. In 2007, 63% have reported the same. In 2007, 53% reported being satisfied or very satisfied with their relationships, including spouses/boyfriends/girlfriends. And perhaps most positive, in 2007, 76% participants were either satisfied or very satisfied with their family relationships.

***Transitions* Trend #18: *Transitions* participants disclose their learning disability at work only when necessary for the job. (Continuing Trend)**

Forty-eight (48%) of employed participants have disclosed their disability to their employer. Of the 52 (52%) of participants who have not disclosed, the majority (43 of 52) have not disclosed because they felt it was not necessary. On a positive note, only one participant has reported receiving a negative response from an employer.

***Transitions* Trend #19: Significantly more women working full-time disclose their learning disability at work than men working full-time. (Continuing Trend)**

In 2007, consistent with previous years, only nine males have disclosed having a learning disability at work, while for females the figure is 19.

***Transitions* Trend #20: Few participants who are currently employed use accommodations and/or assistive technology at work. (Continuing Trend)**

In 2007, only 22% of participants who are currently employed use accommodations at work, which is a very modest increase from previous years. Similarly, of the 77 currently employed participants, the majority, 64, (83%) do not use assistive technology because it is not necessary for their current employment.

***Transitions* Trend #21: *Transitions* participants have good relationships with their co-workers. (Continuing Trend)**

In 2006, 96% of participants reported having a comfortable relationship with their coworkers, and in 2007, 93% reported having the same positive relationship.

***Transitions* Trend #22: An overwhelming percentage of *Transitions* participants experience job satisfaction. (Continuing Trend)**

In 2006, participants were asked if they are satisfied with their job. A surprising 73% responded affirmatively, with 74% responding the same in 2007.

***Transitions* Trend #23: Overall, *Transitions* participants feel they have learned how to manage their learning disability. (Continuing Trend)**

We asked participants to assess if they have learned to manage their learning disability. In 2006 and 2007, the response was identical with 87% of participants indicating that they have indeed learned to manage their learning disability.

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I. METHODOLOGY

The fourth *Transitions* survey was launched on January 9, 2007, and the surveying ended on June 19, 2007. The survey was once again made available to participants to complete either online via the *Transitions* Portal or by telephone with a Research Assistant. Mailed surveys were continued as a third option for those participants were very difficult to get a hold of, or otherwise did not have access to the Internet but who also did not prefer to do the survey over the telephone.

Our final figure of completed surveys for this round is 119, down from our total of 141 from the third phase.

The following will outline in detail the surveying process as well as the obstacles that were encountered for the fourth phase of the *Transitions* Study.

I. 1. Getting Started

In preparation for the fourth round of *Transitions* surveying, the Research Assistants sent out a general email to all *Transitions* participants notifying them that the fourth survey was about to be released. Surveying commenced on January 9, 2007, when participants were emailed invitations, which included their unique token IDs, as well as a link directing them toward the *Transitions* Portal where they can complete the survey online. The email invitations were well received by the participants resulting in a healthy level of surveys being completed online within the first couple of weeks. This can be partly attributed to the use of these email invitations for the intake and second surveys, as participants have become familiar with them. Some participants eagerly responded by completing the survey online, while some sent one of the Research Assistants an email requesting a telephone survey.

In spite of this positive start, we did encounter some difficulties, all of which are in keeping with the nature of longitudinal research.

I. 2. Telephone Surveying

Once the fourth survey was launched and all participants were contacted either through email or telephone, our next step was to get the participants to complete the survey. As stated above, there was an early surge due to the email invitations, which resulted in many online surveys being completed via the *Transitions* Portal. As the weeks went by, however, it became clear that the level of involvement and the number of surveys being completed online was declining.

In an attempt to revive the momentum, the Research Assistants began a “reminder campaign” and started emailing and calling participants on a regular basis to encourage them to complete the fourth *Transitions* survey. This generated the revitalization that we were hoping for as another batch of participants completed the survey online, while others requested to have a telephone survey with a Research Assistant. Some were willing to complete the survey when the first contacted by a Research Assistant. Some participants, as a result of their learning disabilities, found the online survey to be overwhelming and too difficult to navigate. These concerns were easily addressed by scheduling a telephone interview, during which the participant completes the survey verbally while a Research Assistant transcribes their responses.

I. 3. Telephone Surveying: The Interview

Telephone surveys were set up according to the availability of the participants and all efforts were made to accommodate their schedules by the Research Assistants, in an attempt to engage as many participants as possible and to retain their interest in the study. As a result, telephone surveys were conducted during the weekdays and on weekends in the morning, afternoon or evening depending on the participant’s schedule.

However, a couple of obstacles arose when a Research Assistant telephoned the participant on the agreed upon date and time to complete the survey. First, the participant was not at home, and second, the participant had to reschedule because something else had come up. This of course delayed the surveying process, because in some cases it would take numerous more attempts for the participants to complete the survey either because they became unreachable or they were too busy with school or work.

When a Research Assistant was finally able to get a telephone survey underway, she would notify the participant that the length of time it would take to complete the survey is about 30 minutes. The Research Assistant would then ask the questions and transcribe the responses given by the participant. The advantage to conducting a telephone survey included the ability to elaborate on or to clarify questions, which resulted in more detailed responses. By speaking to the participant, the Research Assistants also had the opportunity to get to know them on a more personal level, which helped to create a relationship between the participants and the Research Assistants and which will hopefully enhance the *Transitions* community as the study progresses. It was also imperative for the Research Assistant to obtain the most up-to-date contact information to help combat participant attrition.

Once a survey had been completed, the Research Assistant would then log on to the *Transitions* Portal to access the online survey. In order to input the responses, the Research Assistant had to enter in the participant’s unique token ID, which is what the study uses to differentiate between all the participants.

I. 4. Online Surveys

The *Transitions* Portal Administrator was able to make the online survey more user-friendly and managed to fix many of the problems which occurred in the last survey. As with the second and third surveys, participants have the option to save their responses and return to the survey at a later date and time.

Since the beginning of the study, the Research Assistants expected that the convenience factor of the online survey would elicit a positive response from participants, particularly as they could do the survey at their own leisure and in the privacy of their own homes. Since many of the *Transitions* participants are familiar with computers and the Internet, they expressed preference for the *Transitions* Portal, though procrastination proved to be a major obstacle. On average, it took about four to six email and telephone reminders combined before the majority of participants completed the survey online.

I. 5. Mailed Surveys

Given the difficulty in reaching some of the *Transitions* participants, the Research Assistants decided to continue offering the option of a mailed survey with a pre-paid envelope that had begun in the second phase. They mailed surveys to participants without email addresses or Internet access. It was hoped that the mailed surveys including a personalized letter would succeed in encouraging participants.

When the Research Assistants followed up with participants, some of them did mention that they would prefer having the survey mailed out rather than completing it online or by the telephone. There were a couple of setbacks with this approach. For example, some participants thought that the survey was junk mail and threw it out before opening it. Other participants forgot about the survey after initially opening it and did not complete it at a later date.

I. 6. *Transitions* Portal

The *Transitions* Portal, located at www.transitionsportal.ca, came into existence in the spring of 2005 and accompanying its launch was the *First Annual Transitions Longitudinal Research Study to the Ministry of Training, Colleges and Universities*. A PDF version of it as well as the *Second, Third and Fourth Annual Reports* can presently be downloaded from the *Transitions* Portal.

One of the main purposes of the Portal is to create a sense of community among the *Transitions* participants and staff. The Portal is meant to be a sort of virtual meeting place where

participants can get together and share their experiences about what it is like for them to be in school, or getting through it, as well as discussing how their learning disabilities affect their work. The Portal provides a forum for participants to gather, and in this way act as a substitute for face-to-face meetings, which are not possible at this time given the diversity in geographic locations of participants ranging from British Columbia to Nova Scotia.

I. 7. *Transitions* Administrative Portal

In addition to the public *Transitions* Portal, there is also an Administrative Portal which only *Transitions* researchers have access to. The Administrative Portal is where all completed surveys are maintained, providing the Research Assistants with the convenience of viewing the responses online by simply logging in and selecting which survey they wish to analyze. The Administrative Portal has a variety of functions, including the ability to send out emails to the participants, keep track of who has completed the survey and who has not, export data into an Access database for analysis, and also to provide a manageable way of looking up token IDs.

The Administrative Portal is also a useful tool for writing the participants' thank you cards for completing the survey. The Research Assistants are able to specifically look up the individual responses of each participant and to write a personalized note in his or her card, which many participants were appreciative of receiving, along with a *Transitions* USB stick.

The Administrative Portal also allows Research Assistants to update any new contact information for participants by editing his or her particular profile, though such information is also entered into the *Transitions* Study Database.

I. 8. *Transitions* Database

The *Transitions* Study Database is essentially a very detailed Excel spreadsheet, on which the Research Assistants record everything from telephone numbers to addresses to small notes about what participants are planning on doing in their immediate future, so as to get an idea of some of the changes that could happen when the next round of surveying begins.

This database is the primary resource that the Research Assistants work with in terms of contacting participants, updating their contact information including email addresses and telephone numbers, as well as keeping track of how the surveying process is going.

It is then the responsibility of the Research Assistant to contact and engage her own group of participants and to encourage them to complete the survey. By dividing up the participants it also helps to promote a sense of familiarity, with the same Research Assistant intending to

follow through year after year. Participants were able to recognize the name of their Research Assistant resulting in fewer deleted email messages and ignored telephone calls.

I. 9. *Transitions* Methodology Challenges

Participant Attrition

Longitudinal studies are fraught with methodological challenges. Maintaining secure funding for the duration of a study is a familiar challenge to conducting longitudinal research. Keeping track of a highly mobile cohort of participants engaged in the busiest and most complicated phase of their lives is not easy. Asking people to pause in their busy lives and complete a long survey each year is also not easy. It is well known that participant attrition is one of the most difficult aspects of longitudinal research, and we are grateful to our participants for staying with the study.

Once again, the major challenge in the fourth phase of surveying was the difficulty contacting participants due to invalid telephone numbers, addresses and email accounts. Incorrect email information was an issue for several reasons – many of the participants ceased to use their school email account after graduating and did not provide us with a new address, some simply stopped using one account in favour of another and, in some cases, participants did not have access to a computer due to different living arrangements or no longer being a student. Without fail, Research Assistants make an effort to obtain correct email addresses for all participants who are surveyed, even requesting a ‘primary’ and ‘secondary’ address when possible.

With respect to inaccurate telephone and address information, drawing from a transitory population makes it challenging to maintain a database that is up-to-date. Despite the fact that Research Assistants have made significant efforts to collect current contact information in each phase of surveying and have urged participants to forward new telephone numbers or addresses at any time of the year, it has proved difficult. Besides invalid contact information, another obstacle was the frequency of telephone calls going to voice mail. Research Assistants observed a surge in unanswered calls in the fourth round and attributed this to people either not recognizing the displayed telephone number or not wanting to answer a long distance ring. It was very unusual for a participant to respond to a voice mail message, so it was ineffectual to leave a message in these instances. To compound these difficulties, family members were often unwilling to divulge new telephone numbers if they did not recognize the caller or the name of the study. Without an accurate telephone number or address, the usual means of searching for a person via the Internet yielded no results. Still, the overall surveying process was successful, and our core *Transitions* participants are committed to participating in the study for its duration.

Research Assistants

A third formidable challenge receives far less attention, but it is this issue, as we approach the mid point of the 10-year study, which is worth discussing. Researchers are people too. For our three *Transitions* Research Assistants – all in the same age range and living through many of the same life transitions as our participants – this year has been particularly challenging.

Our Research Assistants began working on *Transitions* just after completing their undergraduate degrees, and they were unanimous in their intention to continue with the study for the duration. Given that much of the work of the study – particularly conducting telephone surveys – is done in the evenings and on weekends, it was assumed to be compatible with other career, employment and education changes. Also, given that most of the work is done electronically and with the Portal, it was understood that work could be done irrespective of physical location. And to date these assumptions have been remarkably true.

But what is really remarkable is the degree of change that the Research Assistants have experienced in a relatively short period of time. Only one of the Research Assistants has continued to live in the Ottawa, where the study began and is centered. Among other life changes, she has been married, completed a Master's degree, and has successfully pursued career opportunities in both the public service and teaching. Most recently, she has accepted a position as a Disabilities Counsellor at a post-secondary institution; her engagement with *Transitions* participants over the years has certainly prepared her well for this new role.

Another Research Assistant moved to Montreal to do a Master's degree at McGill University. Before she could complete her thesis she became intrigued by an opportunity to teach in Japan for two years. She not only is teaching full-time and completing her thesis, but, thanks to the wonders of electronic communication, she continues to work on *Transitions*.

The third Research Assistant moved to Toronto to pursue a career opportunity. Despite having to work long hours to establish herself in her new career – a phenomenon many of our participants have experienced, no doubt – she has continued with *Transitions* for the past three years. However, this summer she is getting married overseas, and the demands of her career have grown to the point that, regrettably, she will no longer be able to continue with *Transitions*.

The changes that our three *Transitions* Research Assistants have had in the past four years are perhaps best regarded as a reminder that change is a constant among our study participants. In thinking about change from this perspective, it is a wonder that longitudinal research can hold together as well as it does. As researchers, we worry about change even as we try to embrace it. We worry about participant attrition most of all. We worry that our Trends will dramatically change in ways that will disprove some of positive breakthroughs our LD participants have made in their lives. In the end, what we should really do is let change happen, as it will anyway, and have some faith in the results that will come.

And as for life change and methodological challenges, we are reminded of the Chinese symbol for crisis involving two intersecting lines, one representing danger and the other opportunity. As we continue with *Transitions* we will try to keep a positive and dispassionate perspective, regarding change as it is meant to be, an opportunity for personal growth.

III. LITERATURE REVIEW

III. 1. Overview of primary articles used in this study related to the General Population

Canadian Policy Research Networks (CPRN) Report, April, 2008.

This report claims that 23.7 of Canadians under the age of 25 report feeling overqualified in their jobs. This statistic is significant because it represents the highest percentage among 16 nations, including the United States, where 19% of people under 25 feel overqualified. This follows on a trend towards an increase in low wage workers, despite economic growth. For example in 2000, that figure, adjusted for inflation at \$11.25, was 19.1%.

This report recommends an increase in the availability of co-op programs and encouraging students to consider trade schools.

Rene Morissette and Anick Johnson. "Are Good Jobs Disappearing in Canada?" Business and Labour Market Analysis Division: Statistics Canada, 2005. 11F0019MIE – No. 239.

Using data about hourly wages from the Labour Force Survey from the 1997-2004 period, this study sets out to assess whether the importance of low-wage jobs and well-paid jobs has changed over this period of time. They find little evidence that the importance of well-paid jobs has declined, and little evidence that jobs paying \$10.00 per hour or less have increased in importance in the Canadian economy.

Significantly, however, this study highlights the increasing gap between young workers (under 35) and those who have been in the workforce for years. Importantly, it also shows that within age groups, the wages of newly hired male and female employees (those with two years of seniority or less) have fallen substantially. In addition, in the private sector, a trend of hiring new employees on a temporary basis has risen substantially, from 11% in 1989 to 21% in 2004. The authors suggest that companies benefit by offering temporary jobs to their new employees because it reduces their need to provide defined-benefit pension plans.

Rene Morissette and Garnett Picot. "Summary of: Low-paid Work and Economically Vulnerable Families over the Last Two Decades" Business and Labour Market Analysis Division: Statistics Canada, 2005. 11F0019 – No. 249.

This study analyses fluctuations in hourly wages over the period of 1981-2004. In this period of

time, hourly wages have remained remarkably stable, and among employees ages 17-64, median hourly wages remained at approximately \$15. However, wages in full-time versus part-time jobs evolved in a very different way. Median hourly wages in full-time jobs rose about 5% while those in part-time jobs fell by 15%. In addition, median wages among newly hired employees has fallen. Median hourly wages for male workers with two years of seniority or less fell 13% between 1981-2004, while among women they fell 2%.

Overall, the proportion of low-paid jobs has been stable in this time period. In 1981, 17% of the jobs held by workers aged 25-64 paid below \$10 per hour, and this changed to 16% in 2004. This study theorizes that since the workforce has become better educated and more experienced over the last two decades, one would expect the incidents of low-paid work to fall. However, this was not the case, and within demographic groups like those aged 25-34, the proportion of low wage work increased.

Lev Grossman. "Grow Up? Not so Fast." *Time Magazine*, January 24, 2005.

There is a strong trend among young people today to live at home with their parents well into adulthood, to extend finishing their education, to delay establishing their career, and to avoid or delay committing to permanent relationships. This cover Time magazine article characterizes this twentysomething phenomenon as an extended childhood, a sort of Peter Pan syndrome.

"The years from 18 until 25 and even beyond have become a distinct and separate life stage, a strange, transitional never-never land between adolescence and adulthood in which people stall for a few years, putting off the iron cage of adult responsibility that constantly threatens to crash down on them. They're betwixt and between. You could call them twixters."

Of particular interest to our *Transitions* panel whose average is just over 26, is that "the percentage of 26-year-olds living with their parents has nearly doubled since 1970, from 11% to 20%...." In 2004, 49% of *Transitions* participants were living with their parents, and in 2005 the number had dropped to 39%. As one can see, 39% is much higher than the North American average of 20%. There are extenuating reasons why the *Transitions* group have chosen to live at home longer than the general population, often related to support and the financial assistance they receive from their parents. Living arrangements are one of several interesting social issues that *Transitions* will observe in the coming years.

The Daily, "Study: Post-secondary Education-Who leaves and Why," an excerpt from the Statistics Canada, 2002 Youth in Transition Survey (YITS), November 18, 2004.

Approximately one in every seven students (age 20-22) who attend post-secondary education quit, with the most common reason given for leaving being a lack of program fit. Interestingly,

almost 40% of students who left post-secondary programs between the ages of 18-20 had returned two years later.

Students who stayed in college or university were more likely to report being confident about their skills, were able to make friends easily, and never thought about dropping out.

Not surprisingly, post-secondary Leavers expressed relatively low satisfaction with their program choice. Leavers also cited financial barriers as a major obstacle to continuing with their post-secondary education.

Charles M. Beach and Ross Finnie. "A Longitudinal Analysis of Earnings Change in Canada." Business and Labour Market Analysis Division: Statistics Canada, 2004. 11F0019 – No. 227.

This study analyses tax-based longitudinal data collected from 1982-1989. It found that over this period of time there has been a rise in earnings of women, increased polarization of earnings among men, and a significant decline in the real earning of entry level workers (age 20-24) for both men and women. In addition, upward mobility with regard to wages is shown to be significantly higher for male than for female workers, though with some decline in the 1998-1999 periods.

Ross Finnie and Ted Wannell. "The Evolution of the Gender Earnings Gap Amongst Canadian University Graduates." Business and Labour Market Analysis Division: Statistics Canada, 2004. 11F0019MIE – No. 235.

This papers analyses the gender earnings gap amongst Canadian Bachelor's level university graduates. The overall gap, after two years in the workforce, was quite narrow, though it increased five years after graduation, with men earning more over time than women and increased further over time. Women are shown to be overrepresented in disciplines that generally have low earnings: "a large portion of the gender earnings gap amongst recent graduates has been associated with a general tendency for female graduates of a given field of study to have lower earnings than males regardless of the specific nature of their current job characteristics, post-graduation work experience, or personal attributes." (13) A contributing factor may be that men employed full-time work more hours than women, with the gap growing over time. Many more male than female graduates worked very long hours (more than 50 hours per week), with more than one-quarter of full-time employed men working greater than 50 hours per week in every age group, compared to just 17.1% of female graduates. The gap, however, is greatest amongst married graduates with children: married mothers in full-time work averaged at least four hours less work a week than their male counterparts.

Rene Morissette et al. “Relative Wage Patterns among the Highly Educated in a Knowledge-based Economy.” *Business and Labour Market Analysis Division: Statistics Canada*, 2004.

The major finding of this paper is that even though employment grew much faster in the high-knowledge industries in the last two decades compared with other industries, trends in relative wages and real wages of university and high school graduates have displayed similar patterns across industries. However, earnings of university graduates with degrees in engineering, mathematics and computer sciences are higher than those of other university graduates (21). This study also notes that in all private sector industries, young and prime-aged female university graduates have experienced faster wage growth than their male counterparts (23).

Allen, Mary and Chantal Vaillancourt. “Class of 2000: Profile of post-secondary graduates and student debt.” *Culture, Tourism and the Centre for Education Statistics Division: Statistics Canada*. 2004. Catalogue no. 81-595-MIE – No. 016.2004.

This research paper includes results from the 2002 National Graduates Survey, which, at the time of this report, is the most current Canadian National study about the transition from post-secondary education to the labour market. The NGS is a longitudinal study that measures the labour market success of graduates from Canadian universities and colleges two and five years after graduation. The class of 2000, surveyed initially at the time of graduation, returned results in 2002 about education, employment, and debt.

Allen and Vaillancourt highlight the complexity of the transition to the labour market after graduation. Despite the myriad of paths chosen by this graduating class, two years after graduation 90% of the class of 2000 who did not return to post-secondary education were employed.

Both university and college graduates were equally likely to be employed; however those with bachelor degrees typically held jobs with higher earnings. Eighty-one percent of both college and university graduates were employed full-time, with 9% of college graduates working part-time and 8% of university graduates working part-time. The unemployment rate was the same for both university and college graduates in 2002 with a rate of 7%.

The estimated gross annual earnings of 2000 graduates who were working full-time in 2002 were markedly different depending on the level of educational attainment. The median annual earnings for a college graduate was \$31,200.00 while bachelor graduates typically earned \$39,000.00 annually. Gender does play a significant role when it comes to the difference in salaries between college and university graduates. The median annual earning of a male college graduate was \$35,000.00 while the median annual earnings of a female college graduate was \$28,600.00 annually, with a difference of \$6,400.00. The same is true for university graduates. The median annual earning of a male university graduate was

\$42,000 while the median annual earning of a female university graduate was \$37,000.00 with a difference of \$5,000.00. This wage difference is interesting, as Allen and Vaillancourt point out that female graduates were slightly more likely to be employed than their male counterparts two years after graduation, however they were less likely to be working full-time.

Mylene Lambert, Klarka Zeman, Mary Allen, Patrick Bussiere. “Who Pursues post-secondary education, who leaves and why: Results from the Youth in Transition Survey.” *Statistics Canada*. 2004. Catalogue no. 81-595-MIE2004026.

This study uses data from the Youth in Transition Survey, a national longitudinal survey which first interviewed Canadian youth aged 18-20 in 1999 with a follow-up in both 2000 and 2002. Emphasis is placed on university education.

Over two-thirds of youth in Canada have gone to either college or university in their early twenties. In general, students who pursue post-secondary education are more likely to be women, single with no children, and they are more likely to have lived with two parents while in high school. Youth who have a strong sense of belonging in high school and who do well in high school are more likely to continue their education.

Fifteen percent of youth aged 20-22 who attended post-secondary left their studies without completing their program. Lack of program ‘fit’ is the most common reason for leaving post-secondary, though one in ten youth cited lack of money as the main reason, while only 7% left because they wanted to work. Those who left post-secondary to travel, to change programs, or who just ‘wanted a break’ were the most likely to return, with return rates of 68%, 47% and 38% respectively. Overall, almost 40% of youth that left post-secondary education at the age of 18-20 had returned two years later.

Though this study reports the 2002 YITS findings, the writers of the report emphasize the ongoing nature of their work, stating: “future cycles of YITS will provide a clearer picture on the completion of post-secondary education....[and] will also allow for an in-depth examination of the labour market outcomes associated with having some post-secondary education....” (20)

Teresa Janz. “Low-paid employment and moving up: A closer look at full-time, full-year workers.” *Statistics Canada*. 2004. Catalogue no. 75F0002MIE – 2004009.

The average Canadian who worked full time in 1996-2001 had a 14% probability of being employed with low hourly wages. Low hourly wages is considered less than \$10.95 per hour (after tax). Those with a university degree had an 8% probability of experiencing low

pay compared to 21% of those with high school or less. Women in the service industry were most likely to experience low wages.

Sex differences remain with regard to annual earnings even when other variables were consistent like age, education, occupation and industry. Women earn significantly less money annually than men, on average \$4000.00 - \$8000.00 less. Women are more likely to be low paid and less likely to experience upward mobility in the workplace (men experience a 19% probability of low pay while women experience a 34% probability).

Sandra Franke. "School, work and the school-work combination by young people." Housing, Family and Social Statistics Division. *Statistics Canada*. 2004. Catalogue no. 89-584-MIE – No.3.

This research paper utilizes the General Social Survey and the National Graduate Survey to analyze the time use of high school and post-secondary students when they combine work and study and furthermore how that time use changes upon entry into the labour force.

The transition from school to work has gone from being a simple event to a process, currently estimated to take eight years to complete. The length of this process has an impact on other transitions, like leaving the family home, entering a conjugal union and having children.

One in three young people combine work and study instead of working full-time. Interestingly, the combination of light work and school does not cause men or women to change the amount of time spent on education. Light work has the same effect on men and women, both cut out leisure time, especially socialising and watching television. However, when combining demanding work and school, socialising and leisure and sports become non-existent in the lives of working students. The amount of time spent sleeping also decreases.

Men tend to remain dependent on their parents longer than women, regardless of their employment status. Forty-seven percent of women at the post-secondary level no longer live with their parents compared with 34% of young men.

When the transition from school to work is completed, the time use pattern of young people relieves considerably. A job fills a large portion of the day but much time is left for leisure activities and personal care. Young men make the transition to work earlier than their female counterparts. Employed young men also devote more time to work than young women.

Highlights from the 2003-2004 Ontario University Graduate Survey. Council of Ontario Universities.

This executive summary done by the Council of Ontario Universities draws its information from the Labour Force survey of 2002 by Statistics Canada. This survey is designed to describe employment experiences, earnings and skills matches of students who graduated in 2001 from undergraduate university programs.

Two years after their 2001 graduation, 95.8% of graduates from undergraduate degree programs in the province of Ontario were employed compared with a rate of 93.6% six months after graduation. Their average annual earnings two years after graduation was \$43,296.00 annually compared with \$37,789.00 achieved six months after graduation. Two years after graduation, 85.3% of graduates were working either 'closely' or 'somewhat' related to their field of study, compared with 80.2% six months after graduation.

Provincial Overview of Survey Results Ontario. Employment Profile: 2001-2002 College Graduates. Ministry of Training, Colleges and Universities. 2003.

Of college graduates in Ontario, 57.8% were employed full-time in 2002 with 10.4% employed part-time and 10.2% unemployed. Of those employed part-time 43% say they could not find a full-time job, while 10.7% say working part-time is a personal choice. Forty-four percent of women report working part-time while only 39.7% of men work part-time.

Forty-seven percent of college graduates one year after graduation are employed full-time in a job related to their field of study, with the rate increasing to 51.8% two years after graduation and 61.5% three years after graduation.

The average starting salary one year after graduation is \$26,680.00, increasing to \$28,779.00 and \$34,171.00 two and then three years after graduation.

2001 Census: analysis series. "Education in Canada: Raising the Standard." Statistics Canada. 2001. Catalogue no. 96F0030XIE2001012.

According to the 2001 Census, Canada entered the twenty-first century with a population better educated than ever, with 61% of Canadians ages 25-34 having completed post-secondary education. Twenty-eight percent of all individuals in that age group had university qualifications and 21% held college diplomas while 12% had trade credentials. By comparison, in 1991, only 49% of Canadians had completed education beyond high school.

As far as field of study is concerned, the highest number of Canadian graduates had degrees in Education with a rate of 14%. However, an increasing number of students are choosing technology and business fields in 2001 with Engineering and Commerce attracting the most students with 9% and 8% of the population, respectively.

Women accounted for 57% of the growth in university qualifications in the 1990 and similarly in college, women accounted for 59% of graduates. Two-thirds of trade certificates are held by men.

Klarka Zema, Tamara Knighton, and Patrick Bussiere. "Education and labour market pathways of young Canadians between age 20 and 22: an Overview." *Culture, Tourism and the Centre for Education Statistics Division, Statistics Canada*. 2001. Catalogue no. 81-595-MIE – No. 018.

This research paper utilises the Youth in Transition Survey, a Canadian National longitudinal study designed to examine the patterns of major transition in young people's lives, with a focus on education, training and work. It reports the results of youth aged 20-22 in 2001 with regard to education and work.

By age 22, 76% of youth had participated in post-secondary, though only 35% had graduated; this is because many youth at age 22 are still attending post-secondary education, and is not meant to indicate that they have left post-secondary. Eleven percent of youth in this age group left post-secondary without graduating, though more than 35% of those PSE Leavers at age 20 had returned to school at age 22.

The proportion of youth not in school and not working rose from 10% at age 20 to 14% at age 22. However the authors caution that this "should not necessarily be cause for concern," as many youth leave school to undertake activities outside the labour market such as travelling or volunteering. Unemployment in this age group rests at 3%. The writers of this report emphasise that this report is an initial overview, but that the analysis must be extended over the long-term.

Terman, Lewis M, Robert R. Sears, Lee j. Cronbach, and Pauline S. Sears. "Terman Life Cycle Study of Children with High Ability." *Harvard University: The Radcliffe Institute for Advanced Study, Murray Research Centre*. www.radcliffe.edu/murray. Murray Archive Date, 1996.

This pioneering longitudinal study began by comparing a teacher-selected group of children with high IQ's from (mostly) urban California with children in the general population to discover similarities and differences. Research continued from 1922 until the

present with follow-ups every five years in order to explore the long-term development of gifted children. This is the lengthiest longitudinal study ever conducted.

As the questionnaire devised for young children could not remain the same as the population aged, new series of questions were devised at each five-year interval. The children in 1922 reported on school, interests and reading choices and again on the same in 1936 along with additional questions about life history and family relationships. In 1940 the questions were extended into the areas of the subject's marriage and children and future plans, with similar follow-ups in 1950-1960. From 1972, 1977 and 1982 the questionnaires dealt with problems of older people – retirement, aging etc. Besides the standardized tests (Stanford-Binet Intelligence Test and other intelligence testing from the time) there were also scales, listings and open-ended questions which were coded and recorded.

The Terman longitudinal study highlights the necessity of allowing a panel study of this kind to evolve and change as the population under question ages and develops. In fact, in 1945, the Terman study, on the request of the participants, sent out a brief two-page questionnaire concerning the effects of military service during World War Two. The broader purposes of longitudinal research, fully understanding the variables present in the life course of participants and the influence of those variables on performance, are best met when the questionnaire is flexible and adapts to allow emerging issues to be isolated and investigated.

In addition, the Terman study overall has a low attrition rate for such a lengthy study. There were 1,528 participants in 1922 and by 1983, 863 participants were still in contact. Though this may initially seem like a low number, we must remember that this study began in 1922 and 410 participants were deceased in 1983. Interesting to note is that only 36 participants voluntarily withdrew from the study and 214 were marked as “unknown” in 1983, which meant there had been no contact since 1977. Though it is difficult to define the attrition rate for this study because of the sporadic response to the numerous follow-ups, what can be said is that in 1982 data exists for 75% of men and 80% of women who are not known to be dead. The Terman study seems to show that hand-picking participants and remaining in contact with them is enough to keep participants involved in a longitudinal study, even for a life-time.

III. 2. Overview of primary articles used in this study on populations of adults with learning disabilities.

Kay Langmuir, “National project helps overcome accommodation issues,” *In the News, Queen’s Gazette*, March 10, 2008, p. 5.

Disputes over accommodating disabilities comprise the largest category of human rights complaints in Ontario. As students arrive at college and university increasingly aware of their rights, and accommodation requests increase in number and complexity, faculty regard the issue as a challenge to academic integrity. As a consequence, a new pilot project has been created to help alleviate potentially litigious situations in the post-secondary arena. The Queen’s based pilot, Post-Secondary Accessibility Consulting Team (PACT) has been funded for one year.

Stephanie Dunnwind, “Learning disabled young adults need some independence, author advise,” in *The Seattle Times*, June 23, 2007.

This article is a book review for a new publication by Anne Ford, entitled, On Their Own: Your Adult Child with Learning Disabilities and ADHD. Ford notes that “learning disabilities don’t go away,” but supportive parents have to learn to allow their adult children to become independent. Ford asserts this despite the fact that a common thread between successful LD people is that their parents were very supportive.

Still, parents have to realize that at a certain point adult children with learning disabilities must learn to be adults in all respects. Ford encourages parents to continue to be supportive about safety and finances, but to provide space on social issues and employment. Though it may be difficult for parents to watch as their children make mistakes, perhaps taking on jobs for which they are not suited, it is part of the learning process: “They may lose a job or two, but your role is to be there to tell them it’s not the end of the world and help them to get back in the saddle to try something new.”

Virginia Galt, “It takes ingenuity and persistence to succeed, disabled workers say,” *Globe & Mail*, October 4th, 2007.

Ryerson University and the Royal Bank of Canada have published the results of a new survey about the realities of working life for employees with disabilities. The report cites the many difficulties employees face as well as the enormous pride they receive from working in a competitive and professional environment.

The report is co-authored by Catherine Frazee, the former Ontario Human Rights Commissioner, who states that employees with disabilities, “are persistent and ingenious in balancing the complex demands of working in the corporation.”

Unfortunately, there also exists a phenomenon of workers feeling the need to hide in the workplace. “Practicing concealment is a ‘second job’ layered into their work...A strong example comes from employees who use the distance and invisibility provided by e-mail and phone interactions to establish able-bodied virtual identities.” As a consequence, some employees quietly limit their prospects for career advancement. As well, the report cites that co-workers and managers often felt disabled workers might be slower and less productive than able-bodied workers.

The report says that disabled employees are skilled at learning which co-workers and managers they can trust to ask for help. The best managers are those who have friends or family members with disabilities.

“Participation and Activity Limitation Survey,” The Daily, Monday, December 3, 2007.

Statistics Canada has issued a report based on data from the Participation and Activity Limitation Survey (PALS). The report cites that an estimated 4.4 million Canadians—one in every seven—has a disability. That figure represents an increase of over three-quarters of a million in just five years (12.4% of the population in 2001, increased to 14.4% by 2006).

Most significant in the report to our *Transitions* Longitudinal Study, is the fact that learning disabilities underwent a large increase, not just for children but for adults as well. For children 5 to 14, learning disabilities joined chronic conditions as the most common form of disability. Astonishingly, for children aged 5-14, 69.3% of those with a disability reported a learning disability. Thus 121,080 or 3.2% of all children age 5-14 reported having a learning disability. For adults aged 15 and over, the rate is even more astonishing with almost 40% increase in learning disabilities to an estimated 631,000 in 2006.

Archer, Armstrong, Furrie, Walcot-Gayda, and Wilson. “Putting a Canadian Face on Learning Disabilities” www.pacfold.ca. March 2007.

The Learning Disabilities Association of Canada (LDAC) released a study on the societal costs of learning disabilities in Canada on their website www.pacfold.ca on March 26, 2007. The research herein, begun in 2004 and costing \$302,000, purports to be unique “because it represents the first time any disability organization in Canada has requested access to Statistics Canada data surveys.” The authors examined ten different sets of Statistics Canada data, and produced a report with a three-fold focus. It concentrates on children, youth and adults with learning disabilities and assesses the specific impacts of LD on each group. For the purpose of

this literature review, we have chosen to highlight the PACFOLD data about participants in Ontario age 22-29, the same average age and province of residence as our *Transitions* cohort.

The authors note that in Ontario, slightly more than one person in 100 (1.2%), age 22-29, report having a learning disability. Of these 62.0% were males. With regards to schooling, 42.6% reported less than a secondary school certificate as their highest level of schooling, and 32.5% reported attending trade school. No mention is made of people with learning disabilities who attend other post-secondary programs. Employment data is equally pessimistic, with 40.5% of 22-29 year olds with learning disabilities in Ontario being unemployed. Salary figures for those who were employed were extremely low; 26.3% earned between \$1-\$9,999 annually and 32.5% earned \$10,000 or more annually. With regards to health, only 50.7% reported their overall health was excellent or very good and 46.3% said their physical health was excellent or very good. Mental health figures were not encouraging, with only 47.3% saying their mental health was excellent or very good. When participants were asked how they handle unexpected problems, only 16.7% said they handled unexpected problems well.

Roslyn Kunin & Associates. "Literature Review on the Impact of Post-Secondary Education on Labour Market Attachment for Persons with Disabilities." Presented to The Disability Resource Network, February 2006.

This report combines data from the Statistics Canada Participation and Activity Limitation Survey (PALS) and the Statistics Canada Survey of Labour and Income Dynamics (SLID) in order to assess the impact of post-secondary education on labour market success for persons with disabilities. It applies its findings to the disabled population of British Columbia. This study shows a "strong positive relation between post-secondary education and labour market attachment for persons with disabilities." (Kunin 1) Increasing educational attainment among persons with disabilities improves their chances in the labour market and decreases the percentage of those not in the labour market from 58% to 30.3% for men and from 73.3% to 40% for women (Kunin 7). While this is also true for the general population, what this study makes clear is that higher educational attainment benefits persons with disabilities much more positively than the overall population (Kunin 9). It therefore calls for increased support for students with disabilities in post-secondary programs. The authors note that there is no research yet, linking teaching approaches, teacher qualifications, length of programs etc. in post-secondary, to success in the labour market for students with disabilities.

Levine, Phyllis, Camille Marder, and Mary Wagner, "Services and Supports for Secondary School Students with Disabilities: A Special Topic Report of Findings from the National Longitudinal Transition Study-2 (NLTS2)," May 2004.

This 10-year longitudinal study is following a population of more than 11,000 youth with disabilities ages 13 through 16. This extraordinarily large population was receiving special

education services in grade 7 or above in the 2000-01 school year.

The Individuals with Disabilities Education Act Amendments of 1997 mandate that "...all children with disabilities have available to them a free appropriate public education (FAPE) that emphasises special education and independent living" (IDEA 1997 Final Regulations, Sec300.1a U.S. Department of Education, 1999). This longitudinal study tracks and provides the first national picture of the services and supports provided to secondary school youth with disabilities in a single year. As the study evolves it will provide a far more complete picture as youth develop transition plans, complete their high school programs, and begin to use post-school services and supports. Perhaps most noteworthy for the *Transitions* study, subsequent reports will show how services and supports received during secondary school affect students' long term support needs and outcomes.

Robert Frengut, "Social Acceptance of Students with Learning Disabilities," Learning Disabilities Association of America (Originally published in the *Learning Disabilities Association of Nebraska Newsbriefs*, Spring, 2003).

This article contends that while students with learning disabilities have developed sophisticated strategies for learning, many are sorely lacking in social skills. "Many students have commented that they spent too much time on their special academic needs and not enough time just socializing with friends. Sadly, and for many, without the necessary social skills, an LD student faces a bleak outlook for the future in the real world."

The article talks about the positive contribution that computer technology has made for persons with learning disabilities, but warns that the computer is no substitute for social interaction. According to Dr. Joseph LeDoux of New York University's Centre for Neural Science, emotions define who we are, and consequently, we must relate to the world in order to become integrated into it.

Goldberg, Roberta J. et al. "Predictors of Success in Individuals with Learning Disabilities: A qualitative Analysis of a 20-Year Longitudinal Study." in *Learning Disabilities Research and Practice*. 18:4. 2003. pp. 222-236.

Goldberg and colleagues report on their qualitative analysis of interview data collected from a 20-year longitudinal study, earlier presented in Raskind et. al. (1999). Forty-one participants with learning disabilities were involved in this study that traced their progress from childhood to adult life and work. Unlike their previous research where quantitative data was statistically analyzed producing a number of significant success predictors, in the present study, the researchers focused on interview data and qualitative analysis. The main goal was to achieve deeper understanding of these success predictors from an insider perspective. The interviews were two to six hours in length and were conducted by four

experienced professionals from the fields of ethnography, clinical psychology, and learning disabilities.

Qualitative analysis of interview data validated previous findings about success predictors and their contribution to specific outcomes for individuals with learning disabilities. More importantly, the researchers gained a deeper understanding of specific cognitive strategies that shaped these predictors (flexibility, anticipating difficulties, breaking down goals into steps, reciprocal relationships with mentors, and recognition of stress triggers). They also identified several new themes, such as the profound influence of learning disabilities in many contexts, and the necessity for continued support throughout their life. Lastly, the longitudinal nature revealed considerable stability of success predictors from year 10 to year 20, with qualitative data revealing that attributes leading to formation of these predictors began to develop in childhood and remained remarkably stable over time.

The conclusions drawn by the authors are three-fold. First, their position in light of the evidence, demonstrating the impact of a learning disability across many areas of life, is that the field of research and service delivery currently has a very limited scope, focusing primarily on educational contexts. The researchers then argue for a need to broaden the spectrum of intervention strategies to include self-awareness, proactivity, perseverance, goal setting, use of support, and emotional coping. They finally emphasise that these efforts are fully justified by the fact that learning disabilities are life-long conditions, as confirmed by the findings from the present study, and require continuous support from parents, teachers, professionals, and the community.

Madaus, J. W., Foley, T. E., McGuire, J. M., & Ruban, L. M. "A follow up investigation of university graduates with learning disabilities." *Career Development of Exceptional Individuals*, 24:2. 2001. pp. 133-146.

This study represents one of the most recent follow-up investigations into employment outcomes for post-secondary graduates with learning disabilities. The authors surveyed 89 students who graduated from a public university in Northeast United States between 1985 and 1999. The sample came from a pool of students who received special needs services throughout their post-secondary education at this university. The questionnaire used in the survey was developed by the authors who took appropriate measures to ensure content and construct validity, and they also report high reliability at 0.92 and 0.95 for the two scales.

The results support the findings in earlier studies (as reported by the authors) that indicate successful transition of post-secondary students with learning disabilities into the workforce. As shown in the present survey, these individuals are employed at rates comparable to non-disabled graduates. Their full-time employment levels and salaries also exceed those of persons with learning disabilities who have no post-secondary education. Another finding to be noted is that 66% of participants indicated they did not disclose their

disability to an employer. The two main reasons reported by those who did not disclose to their employer were as follows: no need for accommodations and fear of negative impacts on their job security.

The authors stress the importance of the findings showing much higher rates of employment by the post-secondary graduates versus the high-school graduates with learning disabilities. This conclusion is made in light of a significant body of research showing below-average employment success rates for individuals with learning disabilities who did not pursue further education after graduating from high school. While they make a strong argument for the critical importance of post-secondary education for persons with learning disabilities, they also emphasize that all participants in their survey received formal support from the Special Needs Office at the university. The authors also caution about the generalizing findings due to a homogeneous sample - predominantly young, male, and Caucasian - as well as a high national employment rate at the time of the study.

Raskind, Marshall H. Higgins, Roberta J. Goldberg, Eleanor L., Herman, Kenneth L. "Patterns of Change and Predictors of Success in Individuals with Learning Disabilities: Results from a Twenty-year Study," in *Learning Disabilities Research & Practice*, 14:1. 1999. pp. 35-49.

The exploratory research presented in this article is a part of a 20-year longitudinal study, which followed the lives of 41 individuals with learning disabilities, from their entry into the Frostig Center in California as elementary school children, to adult life, and employment 20 years after leaving the Center. In this article the authors present results of a quantitative analysis of the findings to statistically determine the best predictors of success based on data collected at four points in time during the 20-year period. Data was gathered in multiple ways: records, testing, interviews, and researcher ratings on specific success predictors. The dependent measure of success was based on judgments by four researchers with a high inter-rater reliability of 0.97, as well as specific success domains, at 0.94.

It was found that 21 out of 41 participants rated as 'successful'. Statistical analysis determined most significant predictors of success to be: self-awareness, proactivity, perseverance, goal setting, presence and use of effective support systems, and emotional stability. The authors note that these predictors were more powerful than traditionally considered IQ, academic achievement, life stressors, SES, etc. The success predictors identified showed a high level of statistical significance and accounted for a large portion of the variance in participant success (at 75%).

The authors acknowledge that all participants possessed some of the success attributes, but it was the "successful" individuals whose scores on these predictors achieved statistically significant levels. A main recommendation by the researchers concerns the current practices in special education programs that focus mainly on academic achievement. It is

argued that more emphasis should be placed on those attributes that demonstrate a high degree of predictive power as demonstrated in the present study.

Sam Goldstein, Ph.D., “Emotional Problems in Adults with Learning Disabilities,” Learning Disabilities Association of America, (Originally published in *LDA*, Newsbriefs, July-August, 1998).

Though learning disabilities are a lifelong condition, the consequences of LD change. Particularly as one shifts from school to work and community, the implications become more significant. Children with learning disabilities rely heavily on their parents for support. Adults with learning disabilities often struggle to find social supports. For this reason, Goldstein contends that adults with learning disabilities may be at increased risk for developing emotional problems and psychiatric disorders in adult years. However, many individuals with LD do develop a variety of coping strategies that allow them to function well in life.

Levine, Phyllis and Nourse, Steven W., “What follow-up study say about post school life for Young Men and Women with Learning Disabilities: A Critical Look at the Literature.” in *Journal of Learning Disabilities*, 31:3. 1998. pp. 212-233.

This paper is a literature review that references and synthesises the important follow-up American studies regarding post-school outcomes for young men and women with learning disabilities. Thirteen studies are referenced on post-secondary education and employment with respect to students who were served and have graduated from special education programs in the United States.

This examination of the literature on learning disabilities embraces the notion that higher education is the best investment for attaining one’s aspirations and improving one’s status in life. The critical question that is of particular interest to researchers is whether the same opportunities occur for youth with learning disabilities as exist for the general population. More specifically, do students with learning disabilities acquire skills and credentials that significantly improve their job opportunities, wages, level of independence, and quality of life? This question was also of interest to LOTF during its piloting years, and, in fact, it fuelled its determination to follow a cohort of post-pilot students in the form of a longitudinal study.

Levine and Nourse acknowledge that little is known about outcomes, particularly quality of life outcomes for graduates from special education programs. Consequently, there exists a need to research, to collect both quantitative and qualitative information:

“Despite the proliferation of follow-up studies in the past two decades, the immediate and

long-term post-high school and long-term post-high school lives of youth and learning disabilities who were served in special education are not well understood; little is known about the quality of life these individuals experience, how they manage (or do not manage to fit) to fit into their communities, how satisfied they are with their lives, and how their life adjustment compares to that of students who were not identified as requiring special education services.” (213)

This review cites studies that provide empirical evidence to demonstrate that, “generally speaking, youth with learning disabilities do less well than their peers without disabilities,” a claim that students, parents and professionals have always known intuitively through experience, but whose causes and solutions remain to be explored.

The review concludes that while the attainment of post-secondary education may well hold the key to an enhanced quality of life for students with disabilities, the assumption has yet to be fully proven. The authors recommend further follow-up study in order to, “provide the empirical base necessary to advocate for improvements in service delivery, and... to improve the quality of life for our youth” (213).

Vogel, Susan A, Faith Leonard, William Scales, Peggy Hayeslip, Jane Hermansen, and Linda Donnell, “The National Learning Disabilities Post-Secondary Data Bank: An Overview.” in *The Journal of Learning Disabilities*, 31:3. 1998. pp. 234-247.

This study reports on the assessment of support services policies, the proportion of students with learning disabilities and factors that affect differences in proportions in a national sample of American post-secondary institutions. A survey was used to investigate admissions policies, year of initiation of learning disability support services, type and location of support services, eligibility criteria for services and accommodations, the number of students with learning disabilities, and demographic and diagnostic information available. These factors contribute to a disparity across the U.S. of the percentage of students with learning disabilities enrolled at post-secondary institutions ranging from 0.5% to almost 10%.

This study references an earlier study that is worth noting in view of the subsequent success of the students who participated in the LOTF pilot programs, and more recently, the Enhanced Services Fund and the *Transitions* longitudinal study. As in most studies in the literature, this study is based on the assumption that completion of post-secondary education is the most effective means by which students with learning disabilities can become financially independent. According to Wagner, Newman and Backorby (1993), “3 to 5 years after exiting from high school, only 30% of the students identified with school-identified learning disabilities in the nation had enrolled in a post-secondary program and a discouraging one-half percent had completed a program or earned a degree.” Wagner, Newman and Backorby could not have envisioned the *Transitions* panel with comparable progress with the general population.

Raskind, Marshall H, Paul J. Gerber, Roberta J. Goldberg, Eleanor L. Higgins, and Kenneth L. Herman, “ Longitudinal Research in Learning Disabilities: Report on an International Symposium.” in *Journal of Learning Disabilities* 31: 3. 1998. pp. 266-277.

This article presents highlights from an international symposium on longitudinal research and learning disabilities. Longitudinal research is presented as essential in the field of learning disabilities. According to McKinney (1994), “longitudinal research remains an under-used but powerful tool, in understanding the development of individuals with learning disabilities and its full impact on practice has yet to be realised.”

McKinney is further quoted, consistent with the symposium theme, as follows: “[a] major failing is not taking full advantage of the descriptive and explanatory power of the longitudinal method itself. Accordingly, we still lack basic knowledge about the natural history of learning disability. Specifically, we know little about how the various risk factors that have been associated with the disorder interact over time to produce learning disabilities, or how the manifestations of the disorder evolve and change over time as a function of biologic and environmental factors. Also, we have little direct knowledge that can be applied to prevent or ameliorate the educational consequences of learning disabilities by altering the course of faulty development. Such are the broader purposes of longitudinal research.”

Symposium participants noted the problems inherent in conducting longitudinal research, as follows: cost, funding, control group comparison issues, publication record, participant attrition, communication issues, missing data and excessive date. The symposium, somewhat facetiously wondered, “why would anyone want to do longitudinal research in the first place?” given these difficulties.

Nonetheless, longitudinal research with all its inherent difficulties is regarded as essential to a complete and holistic understanding of persons with learning disabilities, as they determined: “[i]n order to provide persons with learning disabilities with the proper opportunities/experiences and determine the most valid treatment/ interventions—in the long run—for promoting life satisfaction and success, we must fully understand the factors/ variables that are predictive of, and affect, specific outcomes. Again, longitudinal studies are essential for making such determinations.”

Gerber, Paul J, Rick Ginsberg and Henry B. Reiff. “Learning to Achieve: Suggestions from Adults with Learning Disabilities.” *Journal on Post-Secondary Education and Disability*, 10:1. 1993.

Seventy-one adults who all evidenced learning disabilities and who had achieved either moderate or high vocational success were interviewed to obtain valuable information about

how they have coped successfully with their learning disability both in childhood and adulthood. The interview process covered six facets of life: vocation, education, family, social issues, emotional issues and daily living.

“The driving factor underlying the success of the entire sample was an effort to gain control of their lives.” This study highlights both the internal and external manifestations of attaining control and in this way demonstrates an ecological perspective about the way to attain success. Internally, it is shown that re-framing the learning disability is central to bind together desire and goal-orientation into a productive process. Externally, coping strategies are shown to be most efficient when the individual is persistent in using them and is in a responsive and supportive environment.

The study insists that service providers for post-secondary students with learning disabilities consider employing an ecological perspective, one that combines internal and external coping strategies. Service providers should insist on integrated approaches “that more accurately reflect the processes used in attaining success.” As well, a holistic approach also involves allowing students to speak with other adults with learning disabilities who can relate their pathways to success and their own unique strategies.

III. TRENDS RELATED TO EDUCATION

Definitions of terms to be used in the following sections:

Definitions of Post-Secondary Education Status (PSE) as Defined by Statistics Canada

A **PSE Graduate** is someone who graduated from a post-secondary institution and includes both Graduate Continuers and Graduate-Non Continuers

A **PSE Graduate Continuer** is someone who has graduated from a post-secondary institution but has chosen to pursue further education at a post-secondary institution

A **PSE Graduate Non-Continuer** is someone who has graduated from a post-secondary institution and is no longer continuing to study at post-secondary

A **PSE Continuer** is someone who is currently attending a PSE institution but has not yet graduated

A **Leaver** is someone who has attended a post-secondary institution but is no longer pursuing it and has never graduated from post-secondary

Transitions Trend #1: Participants place a high value on post-secondary education. (Continuing Trend)

In 2007, 39 participants (30%) reported being in post-secondary education, with 31 of these participants having returned to post-secondary studies after graduation.

This is similar to previous year's data. In both 2004 and 2005, 45% of participants were studying at a post-secondary level, and that number was 33% in 2006.

III. 1. General Education Statistics

The amount of participants who report that they are currently studying remains high. Though the number of participants attending a post-secondary institution has decreased since *Transitions* began in 2005 (45% in 2005 to 30% in 2007), we find that having 30% of participants still in school is significant, considering the average age of participants in 2007 is 28.26.

Twenty-nine participants (74%) who are enrolled in a post-secondary institution are full-time, eight (20%) are part-time, and two (5%) are registered as special students.

Twenty-nine participants (74%) who attend school are registered as a student with a disability at the Special Needs Office at their institution. Of the ten participants (25%) who were not registered as students with special needs, six are full-time students and three are part-time, and one is registered as a special student.

These participants who are currently studying are a dynamic group. For example, 10 full-time students report combining full-time studies with permanent part-time jobs, one has a full-time temporary position, and six have part-time temporary jobs. This ability to combine school and work shows great resiliency and good time management skills. Time management skills are especially important in the workplace, and though they are in school, these participants are demonstrating an exceptional ability to budget their time which will be beneficial in a future work environment.

III. 2. Accommodations and Assistive Technology

Of the 39 participants currently studying, 27 (69%) are using accommodations, while 12 (30%) have chosen not to. The percentage of participants using assistive technology is smaller, with

only 17 (44%) using assistive technology to help with their studies and 22 (56%) reporting that they do not. This is similar to the 2007 figures, and we still believe that this figure seems low, though those who do use assistive technology particularly mentioned the following devices:

- Kurzweil
- Inspiration
- Palm Pilot
- Dragon Naturally Speaking
- Read/Write
- Digital Voice Recorder
- Graphic Organizer

III. 3. Field of Study

The following table reports the number of participants in each discipline, as compared to the fields of study data in the previous three *Transitions* reports. Arts, Social Sciences and Education continue to be the main fields of study for *Transitions* participants, though this year the Healthcare/Medical field is also popular.

Field Of Study

Field of Study	2004	2005	2006	2007
Social Sciences	36	19	8	5
Education	0*	16	7	7
Arts	16	12	11	12
Business	13	7	9	1
Sciences	6	6	1	2
Computers	5	4	1	0
Hospitality/Tourism	5	5	1	2
Engineering	3	4	3	3
Math	3	1	1	1
Healthcare/Medical	3	7	3	5
Architecture	2	2	0	0
Trade	2	3	0	1
Media	1	1	1	0
Total	95	88	46	39

- Diplomas/degrees in the Education field were placed in the Social Sciences category in 2004

III. 4. Post-Secondary Education Continuers

In 2007, eight participants are still in school and have not yet graduated. Of these eight, three are in the program they began when they were pilot students, while five have changed programs.

This figure is quite different from 2006. In 2006, of the 46 participants who were currently studying, 22 (48%) had not yet graduated from post-secondary education and 59% of those were still in the program they began as pilot students.

In 2007, however, of 39 participants currently studying, only eight (20%) have not yet graduated from a post-secondary institution, and of those only three (37%) are still in the program they began as pilot students.

When asked what progress they have made toward finishing their program, the responses were again typical of high achieving students in that age group. The three participants who were still in the program they began as pilot students are all in their final year and are completing their final few credits needed to graduate. One participant opted for a lighter course load for her last year of study so she could focus on her grades and extracurricular activities. Another participant, about to graduate with a teaching degree after struggling with her grades these past years, commented: *“Having a learning disability allows us to overcome challenges that others might not be able to face. I have to admit I continue to fight even though the odds are against myself and others like me who have [an] LD.”* Unsolicited comments like this one are a testament to the determination of our participants.

Also similar to students in this age group, the five students who have not yet graduated decided to extend their degrees for a variety of reasons, including health issues, changing programs and studying part-time in order to combine work and school.

The most common reason cited by PSE Continuers in 2005, 2006 and 2007 for not yet graduating is that more time is required to finish due to learning disability. In 2007, six participants gave this response, while one said changing programs has increased the amount of time necessary to be in school. One participant also commented that he has been in his program for the regular period of time.

Also similar to the 2006 figures, when these PSE Continuers were asked if they intended to pursue further education after graduation, an amazing seven of the eight (87.5%) said they planned to return to school after graduation. This is similar to the 2005 finding of 83% and the 2006 finding of 77% of PSE Continuers who believed they would possibly or definitely return to post-secondary studies after graduation. This is a very high statistic, and may attest to the resiliency former pilot students have developed in this challenging aspect of their lives; it also displays both a love for and valuing of education in a population which has typically struggled

with academic achievement.

One participant commented: *“I think life in general is a learning process that we all continue with. Some chose to do it by means of post-secondary education or others by work. I would like to do both. My goal is to become a teacher, teach for about a year or two and go back to school to do my Master's in Education, more specifically special education where my passion lies.”*

Again, the fact that 87.5% of PSE Continuers plan to return to school, along with the fact that many participants have returned to school or plan to, corroborates *Transitions* Trend #2 from previous reports:

Transitions Trend #2: Transitions participants have a higher than average retention rate than the general population in post-secondary education. (Continuing Trend)

III. 5. Further Education Trend: PSE Graduate Continuers

In 2005, we noted that 34 participants (35%) were returning to school after graduation. In 2006, this trend continued with 24 participants (17%) returning to school after graduation. In 2007, there has been a slight increase of students returning to post-secondary education, with 31 participants (31%) returning to school after graduation.

Again similar to the findings in both 2005 and 2006, the majority of participants in 2007 have returned to school because they require further qualifications for the job they desire, 68%. Six participants (19%) in 2007 responded that they wished to become more specialized in their field, while only two participants cited love of education as the reason for continuing in school after graduation. Also reassuring was the fact that only one participant cited concern over leaving school and having to seek employment as their reason for returning to post-secondary education. That the majority of former pilot students who return to school to enhance their career shows a similarity between *Transitions* participants and the general population.

In order to look more deeply into the trend of graduates returning to post-secondary education, we inquired when those PSE Graduate Continuers decided to return to school. Thirteen participants (42%) returned to school right after graduation, nine (29%) returned one year after graduation, and nine participants (29%) returned more than one year after graduation. Furthermore, all of these participants intend to graduate between 2007 and 2010, with the majority (74%) planning to graduate at the end of 2008.

Again similar to the 2006 figure of 50%, in 2007, 52% of *Transitions* PSE Graduate Continuers plan to return to school after graduation, many citing the desire to get Master's degrees and Ph.D.s. This may indicate that *Transitions* participants are life-long learners. Many simply plan to continue taking the occasional course to remain updated in their field, while some feel that a few additional courses outside their program requirements will help them be more qualified for employment.

III. 6. Post-Secondary Education Leavers

In the Intake survey, we observed that 22 (10%) of all *Transitions* participants left their programs without graduating, which was notably lower than in the general population at 15%. In the second phase of the *Transitions* study, the percentage of PSE Leavers in our population dropped to 18 (9%) and it dropped in 2006 again to 10 (7%) of 141 participants leaving school without graduating, a significant decrease in numbers over time. In 2007, 11 (9%) of 119 participants are PSE Leavers.

As in previous years, PSE Leavers were asked to select their reasons (they could select more than one) for not finishing their program of study from the categories below. The 2007 figures are as follows:

- did not enjoy what I was studying - 4 (36%)
- financial concerns – 5 (45%)
- cannot decide what career to pursue – 1 (9%)
- found part-time employment – 0 (0%)
- found full-time employment – 3 (27%)
- could not pass all of the required courses to obtain degree/diploma/certificate - 8 (73%)

The inability to pass required courses remains the most common reason *Transitions* participants do not graduate. This corroborates *Transitions* Trend #3 from 2006.

Transitions Trend #3: Transitions PSE Leavers cite inability to pass required courses as the most common reason for not graduating. (Continuing Trend)

Following up on a new question asked in 2006, PSE Leavers were asked if they intended to return to post-secondary education. Seven participants said they had plans to return to school, one less than the 2006 figure of eight participants. However, four of these participants had no definite time schedule of when they plan to return to school, though one participant intended to return to school in September 2007. One participant responded he would return to school “when I have money.”

When asked what they feel they need to do in order to ensure that they graduate from post-secondary education should they return, the Leavers' responses in 2007 were quite different from those in 2006. In 2006, answers centered around the drive for qualifications, time to focus on studies, and settled finances. However, in 2007, students cited need for extra help and further reliance on the Disability Offices at their institutions.

When asked why they did not intend to return to school, two participants cite job-related reasons, one the physical inability to attend school and one financial difficulties. Disturbingly, one participant writes: "I have employment. I cannot pass the courses required. [There are] not enough resources available to give me the help I require."

III. 7. Graduation

When *Transitions* participants were first surveyed in 2004, 55% had graduated from an Ontario post-secondary institution. In 2005, 63% had graduated. In 2006, 77% participants had graduated, and in 2007 84% have graduated – a decrease in numbers that we again attribute solely to survey attrition.

“Primary” Graduation Statistics

As in the Third Annual Report, participants who have graduated for the first time will be referred to as having graduated with a “primary” degree/diploma/certificate.

Thirty-four participants graduated once, returned to school, and have recently graduated with another degree/diploma/certificate and will be referred to as having graduated with a “secondary” degree/diploma/certificate. Ten participants have graduated from three programs, and will be referred to as having graduated with a “tertiary” degree/diploma/certificate.

Of the fifty-six primary graduates, twenty graduated with degrees, thirty-one with diplomas and six with certificates.

“Secondary” Graduation Statistics

Of the thirty-four “secondary” graduates, the highest number, 11, graduated with two degrees. Nine participants have earned a degree and a diploma. Six participants have earned a diploma and a certificate. Four participants have earned two diplomas, two have earned a degree and a certificate, and finally one participant has earned two certificates.

“Tertiary” Graduation Statistics

Of the 10 “tertiary” graduates, four participants earned three college diplomas. Three earned two diplomas and one certificate. Two had earned a degree, a diploma and a certificate, and one had earned two degrees and a diploma.

Expected Graduation

Those participants presently in school were asked when they expect to graduate. Of the 31 PSE Graduate Continuers currently studying, six would-be primary graduates expected to graduate in 2007, six in 2008, two in 2009, two in 2010 and one in 2011. Of those who will soon be earning secondary qualifications, six expect to graduate in 2007, four in 2008, two in 2010 and one in 2007. One participant who will be graduating for a third time expects to graduate in 2008.

Of the eight who had not graduated, two expected to graduate in 2007, four in 2008, one in 2009, and one in 2013.

III. 8. Studying and working concurrently

In 2007, 24 (62%) of the 39 participants who are currently in school combine school and work. This figure is similar to the 2005 and 2006 figures of 53% and 65%. In 2007, 17 participants currently studying are working part-time, and seven are working full-time. Those employed part-time while studying work an average of 13 hours per week and those working full-time while studying work an average of 42 hours per week. The *Transitions* statistics still correspond to figures in the general population (See Sandra Franke. “School, work and the school-work combination by young people.” p. 48) so we are again able to assert that *Transitions* Trend #4 is a continuing trend.

Transitions Trend #4: Transitions participants combine post-secondary education and work reasonably well. (Continuing Trend)

In 2004, 34% of the participants reported participating in a paid co-op placement. We believe this is significant, since entrance into most co-op programs requires an average of at least A-. In 2005, 8% of those who were studying were participating in a co-op program. In 2006, only two participants were participating in co-op, and in 2007 there is only one. In 2006, three participants were in unpaid internships, though this year seven participants have unpaid internships. This is similar to the 2005 figure where 13% of those studying held unpaid internships. We attribute the drop in numbers of those in co-op placements and the similar

number of participants holding unpaid internships to the high percentage of participants who have now graduated and entered the workforce.

Thirteen participants (33%) in 2007 combine school and volunteer work. This is a slight drop in numbers since 2006, where 41% reported that they do volunteer work while studying. It is also a significant drop since 2005 when 88% of participants combined study and volunteer work. Volunteers in 2007 work an average of 6-10 hours per month, which is the same number of hours reported by most volunteers in both 2005 and 2006. We continue to believe that the ability to combine school and volunteer work speaks to the resilience of *Transitions* participants, especially those who combine volunteer work, paid work and school – this year nine participants.

These participants are included in *Transitions* Trend #17 in the Social Section of this report, which details overall volunteer work statistics.

III. 9. Living Arrangements

All previous *Transitions* reports have noted that a very high percentage of our participants live with parents or other family members. In 2004, 49% of participants lived at home, and in 2005 that number had dropped to 39%. In 2006, 44% lived at home and in 2007 29% (34 of our 119 participants) live at home. This percentage remains high relative to the general population where, according to *Time* magazine, only 20% of adults of a similar age live at home, a percentage that has risen from 11% in 1970 (Grossman, *Time*, Jan 16, 2005). In Ontario, the reported number of individuals aged 22-29 living at home is 36.2% (PACFOLD, Ontario, age 22-29, 1).

However, our *Transitions* population figure of 29% living at home is significantly smaller than the LDAC figure of 54.4% of Ontario residents aged 22-29 with learning disabilities who currently live at home (PACFOLD, Ontario, age 22-29, 1).

We asked participants who were living at home to elaborate on their reasons for that choice. Participants were asked to choose one of the following options which applied most directly to their situation and to elaborate in a comments section:

Financial reasons

Cultural reasons

Still dependent on parents (emotionally, etc.)

Parents are dependent on you (i.e. taking care of a parents)

Preferred living arrangement at this time

In 2007, nineteen participants who live at home (56%) responded that living at home is their preferred living arrangement and 16 (47%) say they live at home for financial reasons. Only four participants report that they are still dependent on their parents, three live at home for cultural reasons, and two have parents who are dependent on them. The 2007 figures again corroborate *Transitions* Trend #5:

Transitions Trend #5: A high percentage of Transitions participants are living with their parents or other family members. (Continuing Trend)

The remaining 85 participants (71%) reported on their current living arrangements as follows: 32 (38%) are living with their spouse/partner, 18 (21%) are living alone, 11 (13%) are living with friends, 14 (16%) are living with spouse/partner and children, four (5%) are living with children, and five (6%) are living in residence.

III. 10 Financial Issues

Transitions Trend #6: Financial concerns are impacting on Transitions participants' life decisions. (Continuing Trend)

In 2005, 51% of participants reported that they had accumulated student debt, 34% of whom had accumulated a debt of \$20,000 or more. One-half of the participants who incurred debt stated it had a great effect on their life, while the other half responded that it had little to no effect.

In 2006, we probed the question of student debt. Ninety of 141 participants (64%) reported having student loans, and 71 of that 90 (79%) reported currently being in debt from student loans.

In 2007, 54 of 119 (45%) of participants report currently being in debt from student loans. The amount of debt reported is as follows:

Transitions Participants' Student Debt

Amount of Student Debt	% in Debt in 2005	% in Debt in 2006	% of Debt in 2007
Under \$5000	15%	17%	7%
\$5000 - \$10,000	17%	17%	13%
\$10,000 - \$15,000	15%	13%	17%
\$15,000 - \$20,000	19%	17%	5%
\$20,000 - \$25,000	7%	4%	9%
\$25,000 - \$30,000	9%	14%	15%
\$30,000 - \$40,000	10%	7%	11%
\$40,000 - \$50,000	4%	8%	7%
Over \$50,000	4%	4%	15%
# participants in Debt	100 participants	71 participants	54 participants

When participants' debt is compared each year, we see a slight increase in participants who are over \$20,000 in debt, from 34% in 2005 to 37% in 2006 to 57% in 2007. Forty-three participants (80%) say their student debt affects them at this time.

One participant commented: *"I have to keep a tight budget on my daily meals, reduce the number of times that I can afford to travel, and turn down social events and networking opportunities because of the costs associated with these events. More importantly, I am concerned that if I spend too much I will have to work harder to pay of my debts back. It also concerns me that I may have to postpone plans to get married and pay for a wedding. These debts act as a barrier, which prevents my ability to be a full citizen and enjoy the privileges of being financially independent. However, I also see the loans as an investment into my future which will pay off in the long term for me and my family."*

III. 11. Preparation for Employment

Transitions Trend #7: The majority of Transitions participants, upon graduation, feel prepared to seek employment. (Continuing Trend)

In the 2007 survey, we asked participants who were not currently studying and who had graduated from a post-secondary institution if they felt prepared to seek employment after graduation. Fifty-one of the 69 participants (74%) who have graduated felt prepared to seek employment. This is similar to the 2006 figure of (75%), and again corroborates *Transitions* Trend #7 in this year's report.

Participants were given space to comment about this question and, similar to 2006, despite the fact that 74% said they felt prepared to seek employment, the comments were quite mixed.

Some participants overtly praised university career service centres and disability service centres, stating that help with developing resumes and job portfolios made a difference in their job search. However, one student commented that recent funding cuts have made these services harder to come by:

"I did feel prepared yes, but that has nothing to do with [the university]'s career services which have been so scaled back they haven't done much for students with LDs."

Some participants remarked that their post-secondary education led directly to success in the job market. This participant stated:

"I felt I had the proper education to succeed in my field of employment. I covered off all my bases through education to make sure I succeed."

Some participants commented about the difficulty of finding a job compatible with their skill set. This participant wrote:

"Although I felt confident in what I had learned, I often sold myself short and did not seek employment at a high enough skill level."

Of the 18 participants who did not feel their post-secondary education prepared them for the job market, many commented on the lack of supports in the workforce. *"My first job experience taught me that my learning disability affects me on the job and I was unprepared to ask for accommodations."*

However, the majority who answered that they felt unprepared admit it is merely lack of work experience holding them back: *“The programs I was enrolled in abolished the work placement in the second year of both programs. Due to this, I did not have any work experience in those areas of study, which would have been very beneficial.”*

IV. TRENDS RELATED TO EMPLOYMENT

Please note: Information on the general population outlined in the Employment section of this report comes from three major sources. The first is the National Graduates Survey (NGS). This longitudinal study measures the labour market success of graduates from Canadian Universities and Colleges two and five years after graduation. The class of 2000, surveyed initially at the time of graduation, returned results in 2002 about education, employment, debt, and living arrangements. This is the most current National study about the transition from school to work as of the date of this report. At the provincial level, the 2003-2004 Ontario University Graduate Survey and the 2001-2002 Ontario College Graduate Survey are the most recent inter-institutional reports on the transition from school to work.

IV. 1. Salary and *Transitions* Participants

In Canada, only 47.5% of disabled individuals are employed. Persons with disabilities are, “more than twice as likely not to be working (either unemployed or not in the labour force) as those without disabilities” (Kunin, “Literature Review on the Impact of Post-Secondary Education on Labour Market Attachment for Persons with Disabilities.” p. 6). The average salary of a disabled individual in Canada is \$30,200 annually, compared with \$34,700 as the annual salary of a member of the general population (Kunin 6).

In the light of these Canada-wide statistics, *Transitions* participants have consistently been doing extraordinarily well in the labour market. In our First Annual Report we recorded 121 of 210 (58%) of participants were employed and in the Second Annual Report, 142 of 196 (72.4%) were employed. In the *Third Annual Report*, 112 of 141 (79.4%) participants were employed. In 2007, 98 of 119 (82%) participants are currently employed.

This is also a very high percentage when compared to the 2001 Census data for Ontario wherein only 40.5% of individuals age 22-29 with learning disabilities were employed. The *Transitions* employment rates in 2006 and 2007 are actually higher than the general population employment rate for Ontario in the 2001 Census, which reported 78.6% individuals in that demographic were employed (Census data as cited in PACFOLD, Ontario, age 22-29, p. 3).

The following are highlights from our recent employment data. Figures are calculated out of the total number of 119 participants:

combine work and school: 26 (22%)

are no longer in school and employed full-time: 59 (49%)

are no longer in school and employed part-time: 13 (11%)

are no longer in school and unemployed: 8 (7%)

In comparison with the employment statistics from previous reports, some changes can be reported, though these may have to do with survey attrition. There was a decrease in the number of participants combining work and school, from 30 participants in 2006 to 26 in 2007. We attribute this change to both a higher rate of graduation and to survey attrition. There was an increase in participants working full-time from 65 in the *Second Annual Report*, to 72 in the *Third Annual Report*. However, In 2007, that figure was only 59 this year. The number of participants who are working part-time has fluctuated between each report. Eighteen participants worked part-time in 2005, 10 in 2006 and currently that number is 13. There has also been a consistently significant decrease in the number of participants who are no longer in school and who are unemployed, 31 in the *First Annual Report*, 19 in the *Second Annual Report*, 13 in the *Third Annual Report*, and only eight currently.

We have again chosen to discuss primarily the salaries of participants who are working full-time and not studying, as they currently represent those who have made the fullest transition to the workplace – PSE Graduate Non-Continuers and PSE Leavers. This population makes up 60% of currently employed *Transitions* participants.

Salary Ranges for participants no longer studying

Annual Salary Range full-time	#	%
Less than \$5000	1	2%
\$5000 - \$10,000	1	2%
\$10,000 - \$15,000	2	3%
\$15,000 - \$20,000	6	10%
\$20,000 - \$25,000	10	17%
\$25,000 - \$30,000	3	5%
\$30,000 - \$35,000	10	17%
\$35,000 - \$40,000	3	5%
\$40,000 - \$45,000	4	7%
\$45,000 - \$50,000	3	5%
\$50,000 - \$60,000	12	20%
Over \$60,000	4	7%
Total:	59	100%

In order to better gage the financial status of our participants, in the second survey we reduced the salary range on the survey to \$5000 increments from \$15,000 increments in the intake survey. However, in the third and fourth surveys, we asked participants to state their actual gross salary. This increased our ability to compare *Transitions* participants with the general population, but makes it difficult to compare salaries between years. Thus, to facilitate comparison, the below chart is a comparison of salary ranges at the broadest level, using the \$15,000 increments from the *First Annual Report* done in 2004.

Comparative Salary Ranges 1st-4th Annual Reports

Salary Ranges	2004 %	2005%	2006%	2007%
Less than \$20,000	21%	26%	13%	17%
\$20,000 - \$34,999	48.5%	45%	50%	39%
\$35,000 - \$49,999	23%	23%	27%	17%
\$50,000 - \$64,999	7.5%	5%	7%	20%
\$65,000 - \$89,000	0	0	3%	7%
Total	100%	99%	100%	100%

This general comparison shows a marked improvement in the *Transitions* population from year to year. The number of participants working full-time and earning less than \$20,000 annually had decreased until this year when it raised slightly to 17%. However, the number of participants earning in the \$50,000 - \$64,999 salary range has increased significantly in 2007.

Though the number of *Transitions* participants working full-time and their salaries have risen this year, we have not quite equalled the general population, our benchmark for success. The median earning for university graduates two years after graduation is \$39,000, and \$31,000 for college graduates. Furthermore, the national 25th percentile of college graduates earns \$24,000 annually, and the national 25th percentile of university graduates earns \$31,000 annually (Allen "Class of 2000" p. 31). With a full 17% of *Transitions* participants earning significantly less than both the national 25th percentile and the national median earnings for both college and university graduates, we are afraid this year's numbers do not yet show *Transitions* participants to be earning salaries completely comparable to the average salaries in the general population. Therefore, we hesitantly confirm *Transitions* Trend #8 for another year, hopefully for the last time. Given *Transitions* progress to date, we anticipate that we will be able to eliminate this Trend before the end of the study.

Transitions Trend #8: Transitions participants have lower salaries and are under-employed compared to the general population. (Continuing Trend)

When these *Transitions* salary figures are compared with the statistics for Ontario residents aged 22-29 with learning disabilities, we see that our *Transitions* population is doing extraordinary well salary-wise. The LDAC report notes that of this demographic, 41.2% are unemployed, 26.3% earn between \$1 – 9999 annually, 32.5% \$10,000 or more (PACFOLD, Ontario, age 22- 29, 3). That 83% (slightly less than the 2006 figure of 87%) of employed *Transitions* participants are earning salaries of at least \$20,000 or more annually, reveals what can happen when a learning disabled population in Ontario is given the resources to succeed in school and thus in the job market. We happily corroborate *Transitions* Trend #9 from the *Third Annual Report*.

Transitions Trend #9: Compared to other Ontario Residents aged 22-29 with learning disabilities, Transitions participants have a high rate of employment and good salaries. (Continuing Trend)

In order to have a clearer picture of how each segment of the employed *Transitions* population is faring in relation to the general population, it is necessary to separate employed participants into PSE Leavers and PSE Graduate Non-Continuers who are employed full-time, as was done in the previous three *Annual Reports*.

IV. 2. Post-Secondary Education Leavers

In the *First Annual Report*, we noted that only 22 (10%) of *Transitions* participants had left their programs of study without graduating. Similarly, in the *Second Annual Report* we noted that only 18 (9%) of participants were PSE Leavers. Similarly, the *Third Annual Report* noted that 10 (8%) of participants were PSE Leavers. Thus, we concluded in each year that our *Transitions* population had a lower post-secondary attrition rate than the general population, which is 15% (Allen “YITS” pp. 6-9).

In 2007, only 11 (9%) participants reported being PSE Leavers.

Of the 11 PSE Leavers in 2007, three are unemployed, one is working part-time permanent, one has temporary part-time employment and the remaining six are employed full-time.

In the general population, PSE Leavers are most likely to be male. However, for the past two years we noted that this trend is reversed in the *Transitions* population, with 59% of Leavers being female in 2004 and 61% in 2005. This was the case in 2006, where 50% of Leavers are male and 50% female. In 2007, six Leavers are female, and five are male.

Though the number of PSE Leavers is significantly less this year, it is still useful to look at the salaries of full-time employed *Transitions* PSE Leavers.

PSE Leavers Salary Figures

Annual Salary Range full-time PSE Leavers	Male	%	Female	%	Total	%
Less than \$5000	0	0	0	0	0	0
\$5000 - \$10,000	0	0	0	0	0	0
\$10,000 - \$15,000	0	0	1	16%	1	16%
\$15,000 - \$20,000	1	16%	2	33%	3	49%
\$20,000 - \$25,000	1	16%	0	0	1	16%
Over \$60,000	1	16%	0	0	1	16%
Total:	3	48%	3	49%	6	97%

Though it is difficult to compare between years as this year the number of PSE Leavers working full-time is significantly less than in all previous years, we note that in 2005, 50% of participants earned between \$20,000 - \$34,999 annually. That figure increased in 2006 to 57% of Leavers earning in this salary range. However, in 2007 only two participants (32%) earn in that salary range.

In 2005, 40% of PSE Leavers reported earning salaries less than \$20,000 annually, and in 2006 only 29% earned in that salary range. In 2007, 66% of PSE Leavers earn in that salary range. Because of the decrease in earnings in this group, it is with great hesitation that we corroborate *Transitions* Trend #10 in 2007. If the earnings of this small group continue to be as low as they are this year, we will not corroborate this trend again. It is worth noting, however, that one of this study's highest earners is a PSE Leaver.

***Transitions Trend #10: PSE Leavers employed full-time are generally earning salaries that are comparable to graduates in the general population.
(Continuing Trend)***

What are the Leaver's Reasons?

Specific questions were asked of participants who left school without graduating. Participants were able to indicate more than one reason and the responses are as follows:

- did not enjoy program of study - 4
- financial concerns (i.e. must work a lot, difficulty paying tuition) - 5
- cannot decide what career to pursue - 1
- found part-time employment - 0
- found full-time employment - 3
- could not obtain all necessary requirements to graduate - 8

Four of these participants wish to graduate from the program they began as pilot students, and seven intend to return to school in the future.

IV. 3. PSE Graduate Salary Statistics

Of the 100 graduates in 2007, only 53 are currently employed full-time. Twelve graduates are employed part-time. Five graduates are unemployed. Thirty graduates returned to school.

The figure of 53 (53%) of participants employed full-time is lower than the 2006 figure of 68% and the 2005 figure of 61%.

That 53% of *Transitions* graduates are employed full-time is a significant achievement when compared with Canada-wide employment statistics for individuals with disabilities, though not as impressive as the 2006 figures. As Roslyn Kunin presented to the Disability Resource Network in 2006, 51.8% of disabled male post-secondary graduates and 41.1% of disabled female post-secondary graduates are employed year-round (Kunin, 8). Kunin writes: "it is clear that higher education benefits persons with disabilities in the labour market far greater than persons without disabilities" (Kunin 8).

As salary is what is being assessed in this section, the question of where to place those who have graduated with a secondary or tertiary degree/diploma/certificate was again raised. We have decided to rank those with secondary and tertiary qualifications by the qualification that typically results in the highest paying job, beginning with degree, and moving to diploma, and certificate. Thus, if a participant graduated first with a diploma and then with a degree, for salary purposes, they are in the degree category. However, if someone graduated with a degree and then received a certificate, though those extra qualifications will no doubt be helpful for getting a job, the salary will still be assessed by the qualification that statistically pays the most, a degree.

PSE Graduate Figures by Qualifications

Graduates	Degree	%	Diploma	%	Certificate	%	Total	%
In school	17	33%	12	28%	2	40%	31	31%
Employed full-time	25	48%	27	62%	1	20%	53	53%
Employed part-time	9	17%	2	5%	0	0	11	11%
Unemployed	1	2%	2	5%	2	40%	5	5%
Total	52	100%	43	100%	5	100%	100	100%

IV. 4. PSE Graduate Non-Continuer Salary Statistics

As in the past three *Annual Reports*, we feel that the salaries of PSE Graduate Non-Continuers working full-time are the best indicator of the success of *Transitions* participants in the workplace.

Annual Salaries of Full-time PSE Graduate Non-Continuers

Annual Salary Range full-time	University	%	Diploma	%	Certificate	%
Less than \$5000	0	0	1	4%	0	0
\$5000 - \$10,000	1	4%	0	0	0	0
\$10,000 - \$15,000	1	4%	0	0	0	0
\$15,000 - \$20,000	1	4%	2	7%	0	0
\$20,000 - \$25,000	8	32%	1	4%	0	0
\$25,000 - \$30,000	1	4%	2	7%	1	100%
\$30,000 - \$35,000	2	8%	6	22%	0	0
\$35,000 - \$40,000	1	4%	3	11%	0	0
\$40,000 - \$45,000	2	8%	2	7%	0	0
\$45,000 - \$50,000	2	8%	1	4%	0	0
\$50,000 - \$60,000	5	20%	7	26%	0	0
Over \$60,000	1	4%	2	7%	0	0
Total full-time:	25	100%	27	99%	1	100%

In order to analyze PSE Graduate Non-Continuers properly, this group has been divided into categories, similar to the *First and Second Annual Reports*:

University versus College Graduates
Field of Study
Gender

University Graduates

It continues to be the case that in the general population university graduates have higher earnings, despite both college and university graduates being equally likely to find work upon graduation. The median earnings of university graduates across Canada two years after graduation are \$39,000 (Allen “Class of 2000” p. 12). As reported in the chart below, the highest percentages of our university graduates (32%) are under-employed compared to their peers in the general population, earning between \$20,000 - \$25,000 annually.

It is again worth noting, however, that when compared with Ontario residents with learning disabilities ages 22-29, our *Transitions* population of university graduates far exceeds the highest salary figure listed in the LDAC report: 32.5% of individuals with learning disabilities in this demographic earn over \$10,000 annually, 26.3% earn \$1-\$9999 annually, and 41.2% are unemployed. The successful salaries of *Transitions* university graduates is testament to what can happen when a highly intelligent population is given the tools for success in school that directly translate to labour market success.

Salary of Full-time University Graduates

Annual Salary Range full-time	University Grads	%
Less than \$5000	0	0
\$5000 - \$10,000	1	4%
\$10,000 - \$15,000	1	4%
\$15,000 - \$20,000	1	4%
\$20,000 - \$25,000	8	32%
\$25,000 - \$30,000	1	4%
\$30,000 - \$35,000	2	8%
\$35,000 - \$40,000	1	4%
\$40,000 - \$45,000	2	8%
\$45,000 - \$50,000	2	8%
\$50,000 - \$60,000	5	20%
Over \$60,000	1	4%
Total full-time:	25	100%

Despite the fact that *Transitions* university graduates are under-employed when compared with the general population, this group's salaries have increased annually over the course of the three existing *Transitions* reports. In the *First Annual Report*, we noted that the highest percentage of university graduates was earning less than \$20,000 annually. In the *Second Annual Report* we noted that the highest percentage was earning \$15,000 - \$20,000 annually. The 2006 figure of 46% of university graduates earning \$25,000 - \$35,000 annually was a marked improvement in this population. In 2007, there has been a slight drop again, to 32% earning \$20,000 - \$25,000 annually.

Only a very small percentage of *Transitions* university graduates may now be said to be extremely under-employed – three participants earning less than \$20,000 annually (12%), which is less than the 15% in 2006.

Interestingly, this year ten university graduates are earning salaries higher than the general population average for university graduates, an increase of six since 2006. Especially noteworthy are the five participants earning in the \$50,000 - \$60,000 salary range and one participant earning over \$60,000 annually.

We indicated in the first three *Annual Reports* two factors that we believed influenced low salaries of *Transitions* university graduates. The first factor was that the national salary figures we compare our population with were figures reported for two years after graduation. We estimated that many of our graduates were earning low salaries due to just entering the work force. This may indeed have been the case. This year, 11 of our participants have been with their current employer for more than two years and have been finished their studies for at least two years. Of this 11, one earns \$80,000, one earns \$56,000, one earns \$53,000, three earn \$50,000, one earns \$34,000, one earns \$30,000, one earns \$22,000 and one earns \$20,000. Those earning the highest salaries have been with their employers the longest, except for the participant earning \$80,000, who has been working with that employer for only five months!

In addition, wages have been increasing in high-knowledge industries, but not increasing in low-knowledge industries. Thus, lower earnings also depend on the type of work being performed by graduates.

The second factor we indicated as having an influence on the low salaries of our graduates was field of study. Field of study might have something to do with these low salaries, and will be analyzed after first looking at the salary rates of college graduates.

For a qualitative and subjective perspective of university graduates we asked participants whether or not they consider themselves to be under-employed. We defined under-employment as being employed at a level lower than your education and work experience warrants. Ten university graduates consider themselves under-employed. As one participant doing full-time casual employment commented:

“I am in a position that does not require a university degree only a high school. I am very under paid for my education however I feel it is only a transitional position.”

Seventeen university graduates do not consider themselves under-employed, though by our definition, three are extremely underemployed (less than \$20,000 annually) and 16 fall below the median earning of university graduates in the general population. One participant commented: *“I have a good position which will offer me a great opportunity with skill sets that will allow me to move ahead and gain further employment in the civilian sector.”*

College Graduates

While the median earnings of university graduates in the general population is \$39,000 annually, the median earning for someone with a college degree in the general population was \$31,200 (Allen, “Class of 2000” p. 12).

It is again worth noting, however, that when compared with Ontario residents with learning disabilities ages 22-29, our *Transitions* population of college graduates far exceeds the highest salary figure listed in the LDAC report: 32.5% of individuals with learning disabilities in this demographic earn over \$10,000 annually, 26.3% earn \$1-\$9999 annually, and 41.2% are unemployed. The successful salaries of *Transitions* college graduates is testament to what can happen when a highly intelligent population is given the tools for success in school that directly translate to labour market success.

As demonstrated in the chart below, six of the 27 participants with diplomas (22%) who are working full-time are earning less than the average in the general population, with three participants earning less than \$20,000 annually. However, the majority of participants with college diplomas, 21(77%) are earning the average salary for the general population or above. This is higher than in the *Second Annual Report*, where 50% were earning in that salary range and than the *Third Annual Report* where 59% were earning in that range.

Salary of full-time college graduates

Annual Salary Range full-time	Diploma	%	Certificate	%
Less than \$5000	1	4%	0	0
\$5000 - \$10,000	0	0	0	0
\$10,000 - \$15,000	0	0	0	0
\$15,000 - \$20,000	2	7%	0	0
\$20,000 - \$25,000	1	4%	0	0
\$25,000 - \$30,000	2	7%	1	100%
\$30,000 - \$35,000	6	22%	0	0
\$35,000 - \$40,000	3	11%	0	0
\$40,000 - \$45,000	2	7%	0	0
\$45,000 - \$50,000	1	4%	0	0
\$50,000 - \$60,000	7	26%	0	0
Over \$60,000	2	7%	0	0
Total full-time:	27	99%	1	100%

In our *Second Annual Report*, we noted that like our university graduates, many *Transitions* college graduates are well below the national median annual earnings for college graduates in the general population. The national 25th percentile of college graduates earns \$24,000 annually. However, in 2006, we noticed that only three college graduates with diplomas were earning under this salary range and in 2007 there are only four earning in that range. This indicates that under-employment has gone down significantly in this group.

On a provincial level, the 2001-2002 Provincial Overview of Survey Results of Ontario College Students reveals that the average annual salary of a college graduate employed in a full-time job related to their field of study was \$31,040. Though this survey shows that 87.2% of college graduates are employed, only 73% are employed full-time and of those employed full-time, only 54% are employed in a related field. Therefore, as noted in our last report, though the survey criteria for the provincial and national surveys regarding college graduates' salaries were different, the reported earnings were remarkably close: \$31,200 as the median of the national study and \$31,040 for the average earnings in the provincial Study.

Since the national trend toward low wages and temporary positions for recent entrants into the workforce holds for college graduates, it is important to look at whether those earning lower salaries are doing so because of having recently begun working. We asked participants how long they have been working at their current job.

Similar to our university graduates, most participants who have been working the longest are

earning the highest salaries. Though there are exceptions to this trend. The two graduates who have been working the longest, seven years, are earning \$55,000 and \$35,000 respectively. The four participants who have been working for five to six years earn \$35,000-\$60,000 annually. One participant who has been working for only 2.5 years is earning \$55,000 annually, so it is not always the case that the longer one has been working the higher one's salary. However, it is possible to generalize that those participants who are earning the lowest salaries in this group have been at their current jobs for the least amount of time. The three participants earning the lowest salaries have each been at their job for one year.

The one participant who is currently working full-time and who graduated with a certificate is earning a salary comparable to those who graduated with diplomas. This has not been the case in previous reports, however, as there is only one participant currently with a primary certificate, we cannot make a trend out of this person's earnings.

Again, we felt it important to consider if our college graduates feel themselves to be under-employed. Ten participants with diplomas currently working full-time consider themselves under-employed. Many participants spoke about going back to school in order to get further qualifications to get a higher paying job. One participant wrote: *"my career is at a standstill and I may have to go back to school for a course that there is the opportunity to better myself in."* Others spoke about having to take a job not related to their field of study in order to pay off student debt or pay the bills. One participant wrote: *"I have had to take a totally unrelated job from my studies to pay down debt."*

The participant with a college certificate does not consider herself under-employed, and though her salary is slightly under the average earnings of college graduates, we do not consider her extremely under-employed. Of the ten who consider themselves under-employed, we would consider four under-employed, meaning they earn less than the national median of \$31,200 annually, and two extremely under-employed.

One participant with a diploma, who we consider under-employed, commented positively about his situation: *"I have a new business and it is still in the early growth stage of the business. In time the business will grow and I will be making more money. I enjoy the role of running my own business vs. working for someone else."*

However, many comments were typical of new graduates like this participant, who writes about the difficulty of finding jobs in a related field: *"The type of work I do has nothing to do with what I went to college as there were no jobs available in my field and you require at least 3 years experience."*

Field of Study

As indicated in all previous *Transitions* Reports, field of study strongly influences overall low salaries of *Transitions* PSE Graduate Non-Continuers. We believe this is because many were in the Arts and Social Sciences fields, whose average annual earnings are lower than the earnings of those in professional programs. For example, the average salary six months after graduation for a student with a Bachelor of Arts degree working in Ontario in 2003-2004 was \$32,249, and for a college Arts graduate it was approximately \$27,237 annually. In comparison, the average salary for an architecture or engineering graduate was \$51,540 for university graduates and \$38,000 for college graduates (OUGS and 2001-2002 College Graduates). Thus, *Transitions* Trend #11 remains the same in 2007.

Transitions Trend #11: Field of Study likely influences low salaries of Transitions participants. (Continuing Trend)

Similar to the previous *Annual Reports*, a high number of *Transitions* participants are employed in their field of study. Participants who are currently employed were asked to answer the question: Does your current employment build upon your post-secondary program? This year, 63 (64%) of the 98 employed participants indicated that they were working in a field related to their post-secondary education, while 33 (34%) responded they were not. These figures are very close to the 2005 figures of 67% employed in a related field and the 2006 figure of 63% in a related field.

Gender

As gender is often a determining factor when salary is considered in many Statistics Canada reports, we believe it continues to be important to see if gender plays a role in determining the salaries of *Transitions* participants. There continue to be indications that gender could end up being significant when trying to understand why so many of our participants are under-employed.

Women in the general population make significantly less money annually than men do – usually \$4000 - \$8000 less. Only 41.1% of female post-secondary graduates with disabilities are employed year-round in Canada, compared with 51.8% of male post-secondary graduates with disabilities (Kunin 8).

Forty-five PSE Graduate Non-Continuers, or 45%, are female. It is necessary to note that there

has been a drop in female PSE Graduate Non-Continuer participation in this study, down from 55% in the *Second Annual Report*. Only three of these female PSE Graduate Non-Continuers are unemployed.

We reported in 2006 that of the 26 university graduates working full-time, seventeen (65%) were female and nine (35%) were male. This year, sixteen (64%) are female and nine (36%) are male. In 2006, of the 38 graduates with college diplomas working full-time, seventeen (45%) are female and twenty-one (55%) are male. In 2007, the participant working full-time with a college certificate is female, and of those with college diplomas, 12 (44%) are female and 15 (55%) are female.

Transitions Trend #12: Female Transitions graduates are more likely to experience high rates of under-employment than male participants. (Ending Trend)

In 2005, we reported that 19% of female graduates were significantly under-employed (less than \$20,000 annually) while only 7% of the male graduates were significantly under-employed. Again, in 2006, 8% of female graduates were significantly under-employed, while only 4% of male graduates were significantly under-employed. In 2007, only two female graduates are significantly under-employed, and only three males. It must be noted that the gap has decreased considerably.

The following two tables detail the difference between male and female salaries of graduates employed full-time:

Female Graduates' Salaries

Female Annual Salary Range Full-time	Degree	%	Diploma	%	Certificate	%	Total	%
\$10,000 - \$15,000	0	0	1	2%	0	0	1	2%
\$15,000 - \$20,000	1	2%	0	0	0	0	1	2%
\$20,000 - \$25,000	8	15%	1	2%	0	0	9	17%
\$25,000 - \$30,000	0	0	1	2%	1	2%	2	2%
\$30,000 - \$35,000	2	4%	2	4%	0	0	4	7%
\$35,000 - \$40,000	0	0	2	4%	0	0	2	4%
\$40,000 - \$45,000	2	4%	0	0	0	0	2	4%
\$45,000 - \$50,000	0	0	0	0	0	0	0	0
\$50,000 - \$60,000	2	4%	4	7%	0	0	6	11%
Over \$60,000	1	2%	1	2%	0	0	2	4%
Total full-time:	16	31%	12	23%	1	2%	53	56

Male Graduates' Salaries

Male Annual Salary Range Full-time	Degree	%	Diploma	%	Total	%
Under \$5000	0	0	1	2%	1	2%
\$5,000 - \$10,000	0	0	0	0	0	0
\$10,000 - \$15,000	1	2%	0	0	1	2%
\$15,000 - \$20,000	0	0	1	2%	1	2%
\$20,000 - \$25,000	1	2%	0	0	1	2%
\$25,000 - \$30,000	0	0	1	2%	1	2%
\$30,000 - \$35,000	1	2%	2	4%	3	5%
\$35,000 - \$40,000	1	2%	1	2%	2	4%
\$40,000 - \$45,000	1	2%	2	4%	3	5%
\$45,000 - \$50,000	1	2%	1	2%	2	4%
\$50,000 - \$60,000	3	5%	3	5%	6	11%
Over \$60,000	0	0	1	2%	1	2%
Total full-time:	9	17%		25%	53	56

Gender and University Graduates

The median annual salary for a female university graduate in the general population remains \$37,000 for a full-time worker, whereas the median salary for a full-time employed male university graduate is \$42,000 annually.

We can see that five (20%) three (12%) of our female graduates earn above \$40,000 annually, an increase of two participants since 2006. This indicates that our female university graduates seem to be competing well in the job market, similar to their male peers in the general population.

However, when compared to the *Transitions* male population, it seems that in 2007 four participants (16%) earn above the general population median salary for men of \$42,000 annually.

Thus, we have no reason to conclude from this round of surveying that there is any significant gender difference in terms of university graduate salaries, except to again note that there are more women earning less than \$25,000 annually than men.

Gender and College Graduates

The median annual salary of a female college graduate in the general population is \$28,600 annually, whereas a male college graduate's full-time salary is \$35,000.

We can see that two (7%) females with college diplomas earn less than \$25,000 annually. However, this is a significant decrease from the 2005 figure of 11 (28%) earning in that salary range, and less than the 2006 figure of three. Three (11%) of male college graduates earn less than the average median salary for men, though this is significantly less than the 2006 figure of 24%.

In 2007 we can say that neither male nor female college graduates working full-time appear to be significantly under-employed.

It is also worth noting that eight men (30%) and seven women (26%) earn above the college male average yearly earnings of \$35,000 annually. This does seem to indicate that though some have fallen behind the general population, many of both sexes are faring very well, and are exceeding average earnings in the general population. This year it seems especially important to highlight five women earning \$50,000 or more annually.

Gender and Unemployment

PSE Graduate Non-Continuer Unemployment by Gender

Unemployment	Uni	%	Dip	%	Cert	%	Total	%
Female	1	1%	1	1%	0	0	2	3%
Male	0	0	1	1%	2	3%	3	4%
Total	1	1%	2	2%	2	3%	5	7%

*The unemployment rate on this chart is taken from all PSE Graduate Non-Continuers including those who work part-time. Overall unemployment rate for PSE Graduate Continuers is 13% while overall unemployment rate for all participants is 9.5%.

The overall unemployment rate for PSE Graduate Non-Continuers has shrunk significantly, to an extraordinarily low rate of 7%. In 2006, the majority of those who are unemployed were male, 11%, versus 2% of females. In the Second Annual Report, we noted that 14% of male PSE Graduate Non-Continuers were unemployed and 5% of females.

Across Canada, 5.5% of male post-secondary graduates with disabilities are unemployed for part or all of the year, and 30.3% are not in the labour force, while 5.7% of female post-secondary graduates with disabilities are unemployed for part or all of the year, and 40% are not in the labour force.

Again in this report, due to the small sample size, we cannot extrapolate a definitive result for whether or not the higher male unemployment rate indicates that males are having a more difficult transition to the workplace. We encountered a similar problem in the previous two reports.

IV. 5. Unemployment and *Transitions* Participants

***Transitions* Unemployment Rate**

Unemployment	Uni	%	Dip	%	Cert	%	Total	%
Female	1	1%	1	1%	0	0	2	2%
Male	0	0	1	1%	2	2%	3	3%
Total	1	1%	2	2%	2	2%	5	5%

* Unemployment percentages on this chart are calculated out of all 119 *Transitions* participants.

In the *First Annual Report* we noted that 15% of *Transitions* participants were unemployed. In the *Second Annual Report*, the percentage had decreased to 10%. In the *Third Annual Report* the rate of unemployment was 9.5%. In 2007, we have reached a significant low in unemployment, a rate of 5%. *Transitions* participants now do not have a higher rate of unemployment than the general population at 7% (Allen “Class of 2000” 28), which means we can no longer corroborate *Transitions* Trend #13.

Transitions Trend #13: Transitions participants have a high unemployment rate compared with the general population. (Ending Trend)

Unemployment remains highest in those who earned college diplomas/certificates, as was the case in the previous two reports. This may indicate that some of these participants are experiencing difficulties with the school-to-work transition.

The LDAC report states that 41.2% of Ontario residents age 22-29 with learning disabilities are unemployed (PACFOLD, Ontario, age 22-29, p. 3). The *Transitions* unemployment rate of 5% is remarkably low in comparison and is testament to the fact that when governments invest in post-secondary programs that provide students with learning disabilities with the tools to succeed in the labour market, there is a direct correlation between supports given and employment.

In 2006, *Transitions* directed a number of new questions to participants who were unemployed and who not currently studying. In 2007, we asked this series of questions again. First, we asked if there were any extenuating circumstances related to unemployment. Two participants responded that they were a bad fit in their previous job. One participant responded that severe injury caused their current unemployment. One participant cited anxiety related to job searching. This participant wrote: “*I have severe anxiety with employment: self-esteem, self-confidence, experience, communication, understanding what is expected of me, overwhelmed with new environment people and tasks. [I have] social fears of judgement and rejection. I'm a*

single mother of one child with special needs and we moved to a new province away from family and friends and can't leave the house. Not only do I have [an] LD, I do have other issues."

We also asked unemployed participants to tell us which factors they believe will help ensure a successful job search. We asked "Please rank in order of importance which factors you believe will help ensure a successful job search: (1 being the most important and 7 as least important)". The responses below are a compilation of the most popular responses:

Participation in a mentorship program – 2

Networking – 1

Mock Interviews – 1

Information sessions/workshops on employment - 1

All participants responded that they have tried one or all of these methods in their job searches to date.

In 2006, we also asked these participants "Do you feel hindered in the workplace on account of your LD?" Though we asked this question again in 2007, due to a survey structure problem, we are unable to tabulate the participants' answers. We will ask this question again in 2008.

TRENDS RELATED TO LEARNING DISABILITY

V. 1. Self-Advocacy and Resiliency

In 2005, we defined resiliency as “the competencies and abilities that some people possess which enable them to cope in the face of significant adversity and risk” and we found that the *Transitions* population as a whole is quite resilient. This has remained true in all subsequent years.

Life Goals

*Transitions Trend #14: Transitions participants place great emphasis on educational and career goals, while social goals remain relatively low.
(Continuing Trend)*

We again asked participants to tell us their life goals, as a means for us to assess how well our population balances education and career with personal satisfaction and personal goal setting. In the *Second Annual Report*, participants responded to goal-related questions primarily with career goals. In 2006 and 2007, we encouraged our participants to tell us the goals they have in their personal lives apart from career related goals. Thus, the question we asked was: “What kind of goals (other than career) do you wish to achieve in the near future?” Participants were able to choose any goal on this list, and their responses are as follows:

- Buy property – 66 (55%)
- Get married – 50 (42%)
- Have a steady relationship – 40 (33%)
- Start a family – 47 (39%)
- Travel – 71 (59%)
- Finish school – 41 (34%)
- Pursue further education – 39 (33%)
- Be debt free – 59 (49%)
- Other—16 (13%)

It is interesting how many participants wish to pursue further education, again revealing that

this population has a life-long interest in learning. Also worth noting is the high number of participants who cite being debt-free as a current goal. While our cohort values education, that education does not come without cost. Those who selected “other” wrote goals like “living a happy and balanced life” and “beginning volunteer work”.

V. 2. Impact of Learning Disability on Social Life

In order to understand how participants engage in their social life we asked participants if they consider themselves to be more social or solitary in nature. Fifty-two of 119 (44%) responded that they were more solitary by nature, and 67 (56%) responded they were more social. There is no significant change to report in these numbers since 2005, which are similar to the general population figures, with 61% preferring social activities and 38% preferring solitary ones (2003 General Social Survey). Similarly, participants were asked how they choose to spend their free time from the following options:

Alone: 21
With others: 29
Both equally: 62

Twenty-nine participants (24%) said they prefer to spend their time with others. Though this number seems small, and initially seems to contradict the above answers to “social” or “solitary”, the majority of participants 62 (52%) chose the answer “both equally,” thereby validating the finding above that participants are quite balanced in their social/solitary preferences. Twenty-one (18%) prefer to spend their free time alone. These numbers are almost identical to the figures in 2006 and 2005. Overall, this population seems to strike a good social balance.

Volunteer Work

Transitions Trend #15: A high number of Transitions participants engage in volunteer work. (Continuing Trend)

In 2005, we found that 23% of participants preferred to spend their free time doing volunteer work. To probe this trend in more detail, we asked all participants whether or not they do volunteer work. In 2006, we found that 54 participants (38%) did volunteer work at an average time of six to ten hours a month, with 11 of those participants volunteering between 15 to 30 hours a month.

In 2007, 41 participants (34%) do volunteer work on a regular basis, the majority working

between one to 10 hours per month.

Participants who do volunteer work were asked to select from a list of five answers, the major reasons they choose to volunteer. Thirty-three of the 41 participants who volunteer do so for the opportunity to help others. Twenty-three volunteer in order to gain work experience. Eighteen do so for the sense of satisfaction that comes with volunteering, and 23 selected “opportunity to meet people” as their reason for volunteering. Six participants selected “other” and described activities specifically helping children at holiday times and with children’s athletic meets. One cited the need for “networking” as the reason for volunteering.

Exercise

In 2005, we learned that our participants showed a greater prevalence toward physical activities than in the general population, where 29% of individuals spend their free time exercising (2003 General Social Survey). In the 2005 *Transitions* population, 38% incorporated physical exercise into their daily routines.

In 2007, we continued to investigate participants’ interest in physical activity. We again asked participants “Do you participate in a physical activity on a regular basis?” Seventy-five participants (63%) said they do. Sixty-three percent is the exact same number as reported doing regular physical activity in 2006.

The number of *Transitions* participants who engage in physical activity on a regular basis is higher than the LDAC figure that 46.3% of Ontario residents with learning disabilities age 22-29 who consider themselves physically “healthy” (PACFOLD, Ontario, 22-29, p. 5).

In 2006, we asked those participants “What kind of exercise/physical activity do you do and how often?” As this was an open-ended question, there was a wide range of responses. This year we asked participants to select any of the five options below that describe their activities:

Group sports: 16
Individual sports: 50
Recreational: 38
Outdoor activities: 28
Other: 16

The most popular form of physical exercise was individual sports, with 50 of the 75 (67%) participants engaging regularly in individual sports. Thirty-eight (51%) participants enjoy recreational activities, 20 (27%) do outdoor activities and 16 (21%) like group sports.

This year, we also asked participants “How often do you do your physical activity in a week?” The majority of participants, 31 (41%), exercise 3-4 times a week. Twenty-two (29%) work out one to two times a week, 16 (21%) exercise five to six times a week, and only six (8%) exercise more than six times a week.

Transitions Trend #16: A high number of Transitions participants engage in physical activity. (Continuing Trend)

Relationship satisfaction

Transitions Trend #17: Transitions participants appear to be resilient in social relationships. (Continuing Trend)

In order to assess the impact of learning disability on social life, we have asked participants to rate their current level of satisfaction with friends, relationships and family members. Participants were forced to select from six options, identical to options available in each previous survey. With regard to friendships, the majority of participants, 59%, reported that they are satisfied or very satisfied with their friendships:

Very Satisfied – 22 (19%)
Satisfied – 52 (44%)
Somewhat Satisfied – 25 (21%)
Not satisfied – 12 (10%)
Very Dissatisfied – 5 (4%)
No friends – 3 (2%)

That 63% report being very satisfied or satisfied with their friendships is a drop from the 2005 number of 71%, but an increase from the 2006 59% reporting high rates of satisfaction. The rates of dissatisfaction with friendships remains the same this year, and those who report being somewhat satisfied with their friendships has decreased slightly to 10% from the 2006 figure of 26%. However, the 2007 figure is still higher than the 2005 figure of 18%. We are still interested to see when all participants move away from their social safety nets (school, living at home), if the level of satisfaction with friendships increases or decreases in response to work and family pressures.

When asked to rate their current level of satisfaction with relationships, including spouses/

boyfriends/girlfriends, the responses in 2005, 2006 and 2007 were somewhat different. In 2005, 'no relationship' was the most popular answer, with 36% of participants responding they had no relationship at that time. In 2006, 31% reported having no relationship. In 2007, an equal number of participants (29%) report having no relationship report that they are very satisfied. The number of participants not in a relationship has decreased slightly over the last two years.

Very Satisfied - 34 (29%)
Satisfied – 29 (24%)
Somewhat Satisfied – 14 (12%)
Not satisfied – 7 (6%)
Very Dissatisfied – 1 (1%)
No relationships at this time – 34 (29%)

In 2004 and 2005, a significant amount of participants indicated their family as a significant support, and it was not surprising to find that 82% of participants were either satisfied or very satisfied with their family relationships. In 2006, 76% of participants were either very satisfied or satisfied with their family relationships and this figure is identical in 2007.

Very Satisfied – 34 (29%)
Satisfied – 56 (47%)
Somewhat Satisfied – 17 (14%)
Not satisfied – 8 (7%)
Very Dissatisfied – 4 (3%)
No family relationships at this time – 0

Social Challenges related to Learning Disability

In 2006, we asked a series of new questions relating to learning disability and social life. We began by asking participants if they felt they faced any challenges in their social life as a result of their learning disability. Sixty-five participants (46%) in 2006 reported learning disability related challenges to their social life. However, seventy-six (54%) responded their learning disability presents no challenge to their social life. In 2007, fifty-six participants said their social life was challenged by their learning disability, an increase since 2006. Sixty-three (53%) participants said they do not face challenges in their social life as a result of their learning disability.

To question further those who responded that their learning disability presents challenges to their social life, we asked the question: "What would you say are the biggest challenges you currently face in social situations due to your learning disability?" As participants could

respond freely, the list below is a compilation of the most common answers:

Social Challenges

2006	2007
Shyness: 15	Shyness: 20
Self-consciousness: 12	Speech/self-expression trouble: 12
Memory problems (words, faces, etc.): 9	Trouble in large groups: 7
Problems with self-expression: 6	Making Friends: 4
Social anxiety: 5	Anxiety: 3
Distracted: 4	Memory: 2
Others speak too fast: 3	Reading: 1
Over analyzing everything: 2	Time management: 1
Loner: 2	Difficulty reading body language: 1
Reading in public (menus, signs): 2	

We also asked all participants “Do you feel that your learning disability has given you an advantage in social situations?” Though most participants (79%), responded negatively, twenty-five participants (21%) did feel their learning disability has given them an advantage in social situations. These figures are quite similar to those in 2006. The lists below are a compilation of the most common responses in 2006 and 2007:

Social Advantages

2006	2007
Less judgmental/more empathetic: 9	Less judgmental/more empathetic: 6
Abstract/creative thinking: 5	Not shy: 4
Forced to be confident: 4	Quick thinking: 3
Better memory/more observant: 3	Know own strengths/weaknesses: 2
People skills: 3	Express feelings well: 2
Assertive: 2	Spontaneous: 2
Increased intelligence: 2	Sense of humour: 1
Sense of humour: 2	Socially intelligent: 1
	Quick speaking: 1
	Deal well with stress: 1
	Humble: 1

These participants have recognized their areas of difficulty and many discuss the ways they have adapted to help themselves in social situations. One participant wrote: *"I am very understanding of others differences, I see the world in a different way that others seem to enjoy. I like to laugh and have fun - strategies I learned at a young age to compensate for challenges with social interactions."*

One participant commented at length about the difficulty in answering this question. *"It depends on the social situation. If it is a party situation, then yes, my LD or personality tends to be at a disadvantage...I have a hard time adjusting to such situations and social gatherings where the I is more important than the We." On the other hand, if I am attending a two-day conference, then I try to find as many people to meet that I can because of the knowledge factor that is involved. If there is a purpose, specifically about business, technology, or International relations that I can excel in such situations and will outperform many of the delegates in attendance. Therefore, depending on the social function, I can have an advantage or be at a disadvantage."*

V. 3. LD-Related Challenges at Work

In the previous years' reports we asked participants if their work built on their areas of strength and interest or if their jobs allowed them to avoid their area of greatest difficulty. In 2007, we chose not to ask this question again. The reason is because the answers were not specific enough to provide us with any real data. In 2006, in addition to the above questions we asked participants if they faced any challenges related to their learning disability at work. The responses to this general question, and their list of specific challenges provided insight into their working lives. This year, we chose to ask this question again.

In 2006, when asked if they faced any challenges related to their learning disability at work, 42 employed participants responded that they do face challenges, while 70 responded that they did not. This year, 42 people also responded that they do face challenges, while 56 reported they do not.

Of those who felt they had learning disability related challenges at work, the biggest challenges listed were:

Common Challenges at Work

2006	2007
Memory/concentration: 11	Writing: 13
Spelling errors: 7	Spelling errors: 11
Phonics: 5	Reading: 6
Editing: 5	Time management: 5
Co-workers who do not understand: 4	Math/numbers: 4
Time management: 3	Memory: 3
Hiding learning disability: 2	Focus: 1
Reading: 2	Confidence: 1
Paperwork: 1	Self expression: 1
Not bilingual: 1	

Disclosure at work

All 98 currently employed participants were asked about disclosure of their learning disability at work. Forty-eight participants (48%) who are currently employed responded that they have disclosed that they have a learning disability at work. This is exactly the same percentage as in 2006, and still higher than the 2005 figure of 38% and the 2004 figure of 30%. Of those who disclosed their learning disability, only one received a negative response, and four mentioned that the response was neither negative nor positive. That 99% of those who disclosed found the reaction positive is an incredible percentage, up 4% since 2005 and an identical figure to 2006. This indicates a positive transition from school to work for these participants.

Fifty participants (51%) have not disclosed. Of those participants who have not disclosed, the majority (43 of 50) said disclosure is not necessary, 86%. This figure is higher than the 2006 response of 78%. Three participants were worried it would be held against them, two discussed being afraid to mention it, one said she did not want to be treated differently, and one other responded that she would not have been hired if her superiors knew.

Transitions Trend #18: Transitions participants disclose their learning disability at work only when necessary for the job. (Continuing Trend)

This year, we asked participants who have not disclosed if they plan to. Nine of the 50 who have not disclosed plan to in the near future. We again hope that those who do not believe

their disclosure will be accepted will be encouraged by the 99% positive reaction other *Transitions* participants have had to their disclosure. This figure has been posted on the *Transitions* Portal (www.transitionsportal.ca), and we hope to highlight it again this year.

In previous years we have noted that more females than males have disclosed they have a learning disability at work. In addition, we have noted in previous reports that disclosure may be more important for individuals who work full-time rather than at a part-time job.

In 2007, it is again a trend that more women working full-time disclose their learning disability than men working full-time. In 2007, nine males working full-time have disclosed while 19 females employed full-time have done so.

Transitions Trend #19: Significantly more women working full-time disclose their learning disability than men working full-time. (Continuing Trend)

Accommodations at Work

Of the 98 participants who are currently employed, only 18 (22%) use accommodations at work, though this is an increase from 2005 and 2006 where only 18% and 21% used accommodations.

The most common accommodations used at work are as follows:

- Computer/laptop
- Assistive technology
- More time
- Flexible deadlines
- Proofreader

Four male PSE Graduate Non-Continuers who are currently employed are using accommodations at work. Ten female PSE Graduate Non-Continuers who are currently employed are using accommodations. For those who are using accommodations, it seems they have made the transition from school to work successfully using accommodations, though they are a small percentage of employed participants. All participants currently using accommodations said their employers had no problems providing them.

Still, the majority of participants do not use accommodations in the workplace. Fifty-eight PSE Graduate Non-Continuers who are employed full-time are not using accommodations. Only three participants who are not using accommodations asked for them and had their request rejected. We do not know what particular accommodations these participants requested that

were rejected. The majority of participants not using accommodations report that they are not needed.

Transitions Trend #20: Few participants who are currently employed use accommodations and/or assistive technology at work. (Continuing Trend)

Assistive Technology at Work

Only 21 participants of the 98 (21%) who are currently employed use assistive technology at work. This is a slight decrease since 2006, when only 24% used assistive technology in the workplace, but still higher than the 2005 figure of 15%. The most common assistive technology used was:

Speech to text: 7
Concept mapping: 6
Text to audio: 8
Digital organizer: 5
Digital dictionary: 14

Of those who are using assistive technology in the workplace, only four requested assistive technology from their employer (an increase from one request in 2006), while 17 installed it themselves or brought their own from home. This shows the independence of *Transitions* participants, likely attributable to the excellent training on assistive technology in the pilot programs.

Similar with accommodation use at work, of the 77 currently employed participants who do not use assistive technology at work, the majority, 64 (83%), do not use it because it is not necessary for their current employment. Eleven participants did not respond, one said their workplace did not understand, and another said assistive technology does not work.

Relationship with Co-workers

In 2005, 94% of participants described their working relationship with their colleagues as “comfortable.” In 2006, 96% have a comfortable working relationship with their co-workers. In 2007, 93% of currently employed participants describe their relationship with their co-workers as such.

As of 2006, we asked participants if they interact with their co-workers outside of the workplace. Fifty-eight of the 98 employed participants (59%) responded that they do spend time with their co-workers outside of work. We also asked how much time participants spend with their co-workers outside of work, and the most common response was “less than once a week”(37), closely followed by “1 to 3 times a week” (16), and the rest responding “more than three times a week.” We believe these figures again corroborate *Transitions* Trend #21.

Transitions Trend #21: Transitions participants have good relationships with their coworkers. (Continuing Trend)

General Job Satisfaction

Participants were asked in 2006, “Are you satisfied with your job?” An overwhelming 73% of the participants responded that they were satisfied. In 2007, 73 of the 98 (74%) currently employed participants responded that they were satisfied. Twenty-five participants wrote that they were dissatisfied, 25%.

Transitions Trend #22: An overwhelming percentage of Transitions participants experience job satisfaction. (Continuing Trend)

In 2007, we chose to ask the question “Do you feel you are able to balance work and life? The response to this question was mixed. Fifty-five of the 98 currently employed participants responded affirmatively, 56%. Forty-three answered in the negative, or 44%.

Participants were asked to comment about their job satisfaction. Interestingly, responses whether or not participants answered yes or no to the above question, were very similar. One participant who responded she has found a balance wrote: “*it takes a great deal of effort in order to try to achieve this and keep it up, but I am consciously making an effort to try to keep a balance.*” One participant who responded negatively wrote: “*I am fairly satisfied with the balance, I do wish I was working more and then I would be able to further my personal life goals better.*” Many participants who responded that they could not balance work and life discussed the difficulty of working and taking care of children.

V. 4. Additional Concerns Related to Learning Disability

At the end of the 2007 survey, we asked participants the following question:

“Earlier in the survey, you were asked what specific challenges you currently face in terms of school, employment and social situations. Are there any other ways you feel that your LD affects you at this time that you did not mention above?”

In 2007, 37 participants answered that they felt there were other ways their learning disability affected them (35 in 2006).

Common responses were as follows:

Communication with family/spouse/partner: 7

Time management: 4

Job interviews: 3

Miss social cues: 3

Making/keeping friends: 3

Self expression: 2

Memory: 2

Purchasing assistive technology: 1

Money problems: 1

LD getting worse out of school: 1

Driving: 1

Reading in public: 1

Math: 1

Trouble online chatting: 1

Self-esteem: 1

Finding hobbies: 1

A new theme in this year's responses was the difficulty communicating in a love relationship, whether it be with a spouse, a partner or a boyfriend/girlfriend. One participant wrote: *“My boyfriend told me he could never live with me because I am everywhere”...too messy/unorganized....kind of the nature of having ADHD. So it has limited my love life.*” Similarly, another participant commented: *“With relationships friends and my spouse it's a communication thing. I feel that I just see things differently than others.”*

Regarding job interviews, one participant responded quite negatively: *“When in interviews, I have disclosed my LD and found that I get very bad reception. I never get a call for a second interview. I've now stopped telling them I have one. Regardless of laws and showing honesty,*

you're NOT hired. Plain and simple."

Another participant wrote about the way having learning disability affects life goals: *"My LD affects my willingness to go back to school. I would be concerned that it would be a repeat of my less than positive university experience. My math skills are limited and prove to be a disadvantage when I have to rely on them."*

This question is particularly interesting at the end of the survey for it lets participants freely express themselves, and is helpful for us to plan possible new questions for next year's survey. Perhaps a question about communication with loved ones would be particularly useful, despite the high level of satisfaction with romantic relationships.

We also asked participants: "Do you feel that you have learned how to manage your LD?" An overwhelming 104 of 119 (87%) participants responded that they have learned to manage their learning disability. This percentage is identical to the 2006 figure.

These participants were asked to describe in detail the ways they have learned to handle their learning disability, and the following list is a compilation of the most common responses:

Coping strategies: 25	Choose right career: 1
Adaptive technology/computer: 19	Medication: 2
Know own strengths/weaknesses: 17	
Being very open/ self-advocate: 10	
Give myself more time for tasks: 11	
Ask people to repeat themselves: 5	
Suck it up and move on: 6	
Learning strategies: 7	
Avoid certain situations: 2	

One participant wrote: *"I have learned to live with my LD and I feel that I have achieved much more than even I thought that I would."* Responses like this make us very happy to corroborate *Transitions* Trend #23 from the 2006 report.

Transitions Trend #23: Overall, Transitions participants feel they have learned how to manage their learning disability. (Continuing Trend)

VI. *TRANSITIONS* AND 2008 WORLD SUMMIT OF LEARNING DISABILITIES

From April 14 to 16, 2008, experts from around the world gathered at Lake Louise in order to discuss a wide range of issues related to learning disabilities. Noteworthy is the fact that the goal of the conference from the outset has been to channel discussion into a plan of action (in the form of a white paper) for government and related organizations to change the landscape for persons with learning disabilities. Too often conferences generate a *feel good* atmosphere while people are gathered, but fail to create any meaningful change after the fact. To the credit of the conference organizers from Foothills Academy, this post conference ennui was anticipated, and consequently meaningful, focused follow-up is planned. We look forward to the document that will be produced and the changes that will evolve as a result of the 2008 World Summit.

A representative from the *Transitions* Longitudinal Study was invited to present its interim findings or *Transitions* Trends at the World Summit. The *Transitions* profile is markedly different than the profile of life for adults with learning disabilities displayed in the LDAC study, “Putting a Face on Learning Disabilities” (www.pacfold.ca). The LDAC comparison of adults with learning disabilities with the general population presents a grim portrait, including: being twice as likely to report not being successful in high school, being far less likely to be employed, being two to three times more likely to experience high levels of distress, depression, anxiety disorders, suicidal thoughts, and poorer physical health. The report is intended to shock government into action by making people aware of the reality of everyday life for a significant segment of the population.

Transitions does not dispute the empirical evidence presented in the LDAC report. However, we do take issue with an aspect of the LD portrait that is missing from the report which is essential for governments to act. Government inaction is often attributed to indifference and a lack of caring inherent to all big bureaucracies. What may not be given adequate consideration is this: lobby groups often do not agree on solutions to problems, and solutions rarely offer a straightforward way of effecting change which includes a means of measuring the efficacy of actions taken and dollars spent to create the desired effect. To that end, the World Summit white paper and the *Transitions* Longitudinal Study have a unique opportunity to provide both clarity and leadership on an important social issue.

The *Transitions* cohort is, on balance, doing very well. That is, doing well not just in comparison to the LD population profiled in the LDAC report, but as compared to the general population. This seemingly banal observation could not have been even contemplated a mere 20 years ago. Therefore, it follows that whatever ingredients have contributed to the present success of the *Transitions* group, these should be studied and considered carefully before recommendations are made to governments about the issue of leaning disabilities. If we can break down and articulate what the ingredients for success are for persons with leaning disabilities, then the disparity between these two populations can be narrowed with focused, measured action. In the absence of a success model to aspire to, governments and the general public will conclude that the problem is just too big, too difficult, and they will put their collective heads in the sand.

Based on our *Transitions* Trends to date and with the application of common sense, here are

straightforward, simple even, observations and recommendations that could create powerful positive change in the lives of persons with learning disabilities--and as a benefit to governments which fund the necessary interventions--save the taxpayer untold millions of dollars, if only we have the courage to make the investment, and the patience to allow it to realize its potential.

Observations and Recommendations for Change

- *Properly supported and motivated students with learning disabilities can be truly successful* (*this is *the* primary Key finding in the Final Report of the Learning Opportunities Task Force, based on research work carried out over five years, 1997 to 2002. In order to access the LOTF's history, extensive research work, including the Final Report, please go to LOTF Archive on the Homepage of www.transitionsportal.ca)
- Parents know, and we who work in post-secondary institutions know from experience that students with learning disabilities are far more likely to get to college or university if they are given strong support and advocacy from their parents. Therefore, it follows that since not all children with learning disabilities have strong parents to advocate for them, there is a large number of capable children who never make it to post-secondary education.
- Therefore early intervention and diagnosis coupled with seamless support and transition throughout the educational experience is an essential social investment.
- Therefore teacher training must be revamped in order to include substantial knowledge about learning disabilities in order that early identification can successfully take place, leading to an assessment by a qualified psychologist.
- Further, teacher training must provide teachers with expertise to provide the support required to successfully manage ongoing educational plans.
- As well, subsequent training and release time must be given in order that teachers can teach LD children how to use appropriate adaptive technologies.
- By secondary school, teachers – with further release time and training – should be providing students with meta-cognitive training in order that students can begin developing their own strategies for academic success.
- With these common sense interventions in place, secondary and post-secondary schools need to develop a structured transition plan that informs students of post-secondary

academic expectations, special needs office procedures and available supports, and the means for getting an updated psycho-educational assessment if it is needed. To this end, the government department responsible for the primary and secondary sectors, must dialogue and strategically plan with the post-secondary sector in order that the concept of *seamless transition* become a working reality.

- Though we know that students with learning disabilities can be as successful as the general population, many must work harder and spend more time to achieve parity, and they may lack work experience upon graduation. Therefore career counselling, and assistance with co-op, mentoring and job placement will allow adults with learning disabilities to complete on equal footing in the labour market with their general population peers.

VII. BIBLIOGRAPHY

- Adelman, Pamela B. and Susan A. Vogel. "Adults with Learning Disabilities 8-15 Years after College." in *Learning Disabilities*. 10:3. pp. 165-182.
- Allen, Mary and Chantal Vaillancourt. "Class of 2000: Profile of post-secondary graduates and student debt." Culture, Tourism and the Centre for Education Statistics Division: Statistics Canada, 2004. Catalogue no. 81-595-MIE – No. 016.2004.
- Allen, Mary, Mylene Lambert, Klarka Zeman, Patrick Bussiere. "Who Pursues post-secondary education, who leaves and why: Results from the Youth in Transition Survey." Statistics Canada. 2004. Catalogue no. 81-595-MIE2004026.
- Archer, Armstrong, Furrie, Walcot-Gayda, and Wilson. "Putting a Canadian Face on Learning Disabilities" www.pacfold.ca. March 2007.
- Asher, Gregg, Robert J. Miller, Stephanie Corbey. "Promoting Post-secondary Education For High School-Aged Youth With Disabilities: A Model of Empowerment." 13:1. 1994. p. 57.
- Baer, Robert M. et al. "A Collaborative Follow-up Study on Transition Service Utilization and Post-school Outcomes." in *CDEI*, 26:1. 2003. pp. 7-25.
- Blackorby, J. "Disability, special education, and social class: Their relationship to post school status." Unpublished Doctoral Dissertation, University of Washington, Seattle, 1991.
- Bruininks, R.H., Wolman, C., & Thurlow, M. L. "Consideration in designing survey studies and follow-up systems for special education service programs." in *Remedial and Special Education*, 11:2. 1990. pp. 7-17, 46.
- Casey, Jack, et al. "Individualized Transition Planning for Students with Learning Disabilities." in *The Career Development Quarterly*, 49. 2004. pp. 60-72.
- Cook, Bryan G. et al. "Backlash against the inclusion of students with learning disabilities in higher education: Implications for transition from post-secondary environments to work." in *Work*, 14. 2000. pp. 31-40.
- Cummings, Rhoda., Maddux, Cleborne D., Casey, Jack. "Individualized Transition Planning for Students with Learning Disabilities." in *The Career Development Quarterly*, 49. 2000.
- Dunnewind, Stephanie. "Learning disabled young adults need some independence, author advise," in *The Seattle Times*, June 23, 2007.

- Franke, Sandra. "School, work and the school-work combination by young people." Housing, Family and Social Statistics Division. Statistics Canada. 2004. Catalogue no. 89-584-MIE – No.3.
- Frengut, Robert. "Social Acceptance of Students with Learning Disabilities," Learning Disabilities Association of America (Originally published in the Learning Disabilities Association of Nebraska Newsbriefs, Spring, 2003).
- Galt, Virginia. "It takes ingenuity and persistence to succeed, disabled workers say," Globe & Mail, October 4th, 2007.
- Goldberg, Roberta J. et al. "Predictors of Success in Individuals with Learning Disabilities: A qualitative Analysis of a 20-Year Longitudinal Study." in Learning Disabilities Research and Practice. 18:4. 2003. pp. 222-236.
- Sam Goldstein, Ph.D., "Emotional Problems in Adults with Learning Disabilities," Learning Disabilities Association of America, (Originally published in LDA, Newsbriefs, July-August, 1998).
- Grossman, Lev. "Grow Up? Not so Fast." Time Magazine. January 24, 2005.
- Haller, E.J., & Virkler, S.J. "Another look at the rural-non-rural differences in students' educational aspirations." in Journal of Research in Rural Education, 9:3. 1993. pp. 170-178.
- Halpern, A.S. "A methodological review of follow-up and follow-along studies tracking school leavers from special education." in Career Development of Exceptional Individuals, 13. 1990. pp. 13-27.
- Janz, Teresa. "Low-paid employment and moving up: A closer look at full-time, full-year workers." Statistics Canada. 2004. Catalogue no. 75F0002MIE – 2004009.
- Kay Langmuir, "National project helps overcome accommodation issues," In the News, Queen's Gazette, March 10, 2008, p. 5.
- Klarka Zema, Tamara Knighton, and Patrick Bussiere. "Education and labour market pathways of young Canadians between age 20 and 22: an Overview." Culture, Tourism and the Centre for Education Statistics Division, Statistics Canada. 2001. Catalogue no. 81-595-MIE – No. 018.

- Kunin, Roslyn & Associates. "Literature Review on the Impact of Post-Secondary Education on Labour Market Attachment for Persons with Disabilities." Presented to The Disability Resource Network, February 2006.
- Levine, P. "Gender Differences in long term post school outcomes for youth with mild mental retardation, learning disabilities and no disabilities: Myth or reality?" Unpublished doctoral dissertation, University of Washington, Seattle. 1993.
- Levine, Phyllis, Camille Marder, and Mary Wagner, "Services and Supports for Secondary School Students with Disabilities: A Special Topic Report of Findings from the National Longitudinal Transition Study-2 (NLTS2)", May 2004.
- Levine, Phyllis and Nourse, Steven W., "What follow-up study say about post school life for Young Men and Women with Learning Disabilities: A Critical Look at the Literature." in *Journal of Learning Disabilities*, 31:3. 1998. pp 212-233.
- Madaus, J. W., Foley, T. E., McGuire, J. M., & Ruban, L. M. "A follow up investigation of university graduates with learning disabilities." *Career Development of Exceptional Individuals*, 24:2. 2001. pp. 133-146.
- Morissette, Rene and Anick Johnson. "Are Good Jobs Disappearing in Canada?" *Business and Labour Market Analysis Division: Statistics Canada*, 2005. 11F0019MIE—No. 239. pp. 5-21.
- Mull, Charlotte A. and Patricia L. Sitlington. "The Role of Technology in the Transition to Post-Secondary Education of Students with Learning Disabilities: A Review of the Literature." in *The Journal of Special Education*, 37:1. 2003. pp. 26-32.
- Raskind, Marshall H., Goldberg, Roberta J. Goldberg, Higgins, Eleanor L., Herman, Kenneth L. "Patterns of Change and Predictors of Success in Individuals with Learning Disabilities: Results from a Twenty-year Study," in *Learning Disabilities Research & Practice*, 14:1. 1999. pp. 35-49.
- Raskind, Marshall H, Paul J. Gerber, Roberta J. Goldberg, Eleanor L. Higgins, and Kenneth L. Herman, " Longitudinal Research in Learning Disabilities: Report on an International Symposium." in *Journal of Learning Disabilities* 31: 3. 1998. pp. 266-277.
- Reisman, Elaine S. and Frances T. Yuan. "Transition to Adulthood: Outcomes for Graduates of a Non-degree Post-secondary Program for Young Adults with Severe Learning Disabilities." in *Learning Disabilities*, 10:3. pp. 153-163.

- Rojewski, Jay. "Occupational and Educational Aspirations and Attainment of Young Adults With and Without LD 2 Years After High School Completion." in *Journal of Learning Disabilities*, 32:6. 1999. pp. 533-552.
- Stacey, Wendy. "The Stress of progression from school to work for adolescents with learning disabilities...What about life progress?" in *Work*, 17. 2001. pp 175-181.
- Stevens, Gillian and Joo Hyun Cho. "Socioeconomic Indexes and the New 1980 Census Occupational Classification Scheme." in *Social Science Research*, 14. 1985. pp. 142-168.
- Vogel, S.A. "Adults with learning disabilities: Research questions and methodological issues in planning a research agenda for 2000 and beyond." in *Canadian Journal of Special Education*, 11:2. 1996. pp. 33-54.
- Vogel, Susan A, Faith Leonard, William Scales, Peggy Hayeslip, Jane Hermansen, and Linda Donnell, "The National Learning Disabilities Post-Secondary Data Bank: An Overview." in *The Journal of Learning Disabilities*, 31:3. 1998. pp. 234-247.
- Canadian Policy Research Networks (CPRN) Report, April, 2008.
- "Participation and Activity Limitation Survey," *The Daily*, Monday, December 3, 2007.
- The Daily, "Study: Post-secondary Education-Who leaves and Why," an excerpt from the Statistics Canada, 2002 Youth in Transition Survey (YITS), November 18, 2004.
- 2001 Census: analysis series. "Education in Canada: Raising the Standard." Statistics Canada. 2001. Catalogue no. 96F0030XIE2001012. (Author Not-Available)
- Provincial Overview of Survey Results Ontario. "Employment Profile: 2001-2002 College Graduates." Ministry of Training, Colleges and Universities. 2003. (Author Not-Available)
- "Highlights from the 2003-2004 Ontario University Graduate Survey." Council of Ontario Universities. (Author Not Available)

VIII. ANNUAL FOLLOW-UP QUESTIONNAIRE 2007

SECTION I: PERSONAL INFORMATION

1) Name: _____

2) Gender: Male ☐ Female ☐

3) Age: _____

4) Pilot Institution: _____

SECTION II: EDUCATION

5) Are you currently studying? ☐ Yes ☐ No*

*If you answered No, please skip to **Question #6**

IF YOU ARE CURRENTLY STUDYING

5a) Are you attending: ☐ University ☐ College ☐ Certificate
Program

5b) Field of study: _____

5c) Are you registered: ☐ Full-time ☐ Part-time ☐ Special Student

5d) Are you registered as a student with a disability? ☐ Yes ☐ No

5e) Do you use accommodations (i.e. extended time on exams, reader, scribe, etc.) provided by the Special Needs Office at your institution? ☐ Yes ☐ No

5f) Do you use assistive technology to help with your studies? ☐ Yes ☐ No
(i.e. Dragon Naturally Speaking, Inspirations, Kurzweil, Spell-checker, Palm Pilot)

5g) If yes, what kinds of assistive technology do you use (i.e. Dragon Naturally Speaking, Inspirations, Kurzweil, etc.)?

5h) Are you currently working part-time while studying? (i.e. Less than 35 hours per week together with classroom study. This does not include summer employment unless one is taking

classes during the summer semester.)

☐ Yes ☐ No

5i) Are you currently working full-time while studying? (i.e. 35 hours per week or more together with classroom study. This does not include summer employment, unless one is taking classes during the summer semester.)

☐ Yes ☐ No

5j) Are you currently working at a non-paying internship/placement? ☐ Yes ☐ No

5k) Do you currently have a paid co-op placement? ☐ Yes ☐ No

5l) Do you feel prepared to seek employment after graduation? ☐ Yes ☐ No
(Please specific about your reasons why or why not.)

5m) Do you face any challenges at school due to your LD? ☐ Yes ☐ No

6) Have you graduated from a college or university program? ☐ Yes ☐ No*

*If you answered No, please skip to the ***Specialized Education Questions*** below and follow the instructions

IF YOU HAVE GRADUATED

7) If yes, please tell us if you graduated from more than one program:

☐ 1 program ☐ 2 programs ☐ 3 programs

7a) If yes, please select the type of each program year of graduation, and institution. (If you selected more than one program, remember to write the year of graduation and the school you graduated from for each. If you graduated with two degrees, diplomas, or certificates, please make this very clear)

a) <input type="checkbox"/> University Degree	Year/Institution
b) <input type="checkbox"/> College Diploma	Year/Institution

c) ☐ College Certificate Year/Institution

IF YOU ARE CURRENTLY STUDYING AND DID NOT GRADUATE

8a) Are you still in the academic program you began as a pilot student? ☐ Yes ☐ No

8b) If yes, please explain what progress you have made towards finishing your program.

8c) If no, please elaborate on your decision to leave the program. (i.e. Did you switch programs?)

9a) Which factors have contributed to you still being in school? (Please choose only one reason that best describes your situation.)

- a) ☐ Decision to switch programs has prolonged studies
- b) ☐ Have been in my program for the typical time period
- c) ☐ More time required to graduate due to LD (i.e. reduced course load)
- d) ☐ Financial concerns (i.e. must work a lot, difficulty paying tuition)
- e) ☐ Love of education
- f) ☐ Concern over leaving school and having to seek employment

9b) Please elaborate: _____

10) When do you expect to graduate? Month: _____ Year: _____

11a) Do you intend to pursue further education after graduation? ☐ Yes ☐ No

11b) Please elaborate on your reasons why or why not.

IF YOU ARE CURRENTLY STUDYING AND HAVE GRADUATED

12) When did you return to school?

- a) ☐ immediately after graduation
- b) ☐ one year after graduation
- c) ☐ more than one year after graduation

13a) After successfully graduating from one post-secondary program, why did you choose to return to post-secondary studies? (Please choose the one answer that best describes your situation and then expand on your choice.)

- a) ☐ Require further qualifications to attain the job or career I want (i.e. B.Ed., trade certificate)
- b) ☐ To become more specialized in my field (i.e. graduate school)
- c) ☐ To obtain higher pay in my field
- d) ☐ Love of education
- e) ☐ Concern over leaving school and having to seek employment

13b) Please elaborate: _____

14) When do you expect to graduate? Month: _____ Year: _____

15a) Do you intend to pursue still further education after graduation? ☐ Yes ☐ No

15b) Please elaborate on your reasons why or why not.

IF YOU ARE NOT CURRENTLY STUDYING AND DID NOT GRADUATE

16a) Why did you leave your program without graduating? (Please choose any reasons that apply and then expand on your choice.)

- a) ☐ did not enjoy program of study
- b) ☐ financial concerns (i.e. must work a lot, difficulty paying tuition)
- c) ☐ cannot decide what career to pursue
- d) ☐ found part-time employment
- e) ☐ found full-time employment
- f) ☐ could not pass all the courses/requirements for graduation

16b) Please elaborate: _____

17) Do you want to graduate from the program that you began as a pilot student

☐ Yes ☐ No

18a) Do you plan on returning to school in the future? ☐ Yes ☐ No

18b) If yes, when do you plan on returning? Month: _____ Year: _____

18c) If yes, what program do you plan to pursue? _____

18d) If yes, what do you feel you need to do to ensure that you successfully graduate?

18e) If no, why do you not wish to return to school?

IF YOU ARE NOT CURRENTLY STUDYING AND HAVE GRADUATED

19a) Did you feel prepared to seek employment after graduation? (Please be about your reasons why or why not). ☐ Yes ☐ No

19b) Please elaborate: _____

20a) Do you plan on returning to school in the future? ☐ Yes ☐ No

20b) If yes, why do you plan to return to school? (Please choose the one answer that best describes your reason for returning to school.)

- a) ☐ To obtain further qualifications to attain the job I want (i.e. B.Ed., trade certificate)
- b) ☐ To become more specialized in my field (i.e. graduate school)
- c) ☐ To obtain higher pay in my field
- d) ☐ Love of education
- e) ☐ Difficulties seeking employment

20c) Please elaborate: _____

20d) If yes, when do you plan on returning to school? (Include month and year)

20e) If yes, what program do you plan to pursue? _____

SECTION III: FINANCIAL CONCERNS

21) Have you ever had any student loans? ☐ Yes ☐ No

(If Yes, proceed to Question # 22a. If No, proceed to Question #23)

22a) Are you presently in debt from student loans? ☐ Yes ☐ No

22b) If yes, what is the amount of debt you have incurred from student loans? (Please be as exact as possible.) \$ _____

22c) If yes, does your debt load prevent you from enjoying the lifestyle that you want? (Please elaborate below.) ☐ Yes ☐ No

22d) If yes, please elaborate on what effect your student debt have on your life at this time:

SECTION IV: EMPLOYMENT

23) Are you currently employed? ☐ Yes ☐ No

IF YOU ARE CURRENTLY EMPLOYED

24) What is your current employment status? (Please choose the one response that best describes your current situation. Remember full-time is considered 35-hours or more per week.)

- | | | |
|--|---|--------------------------------------|
| a) <input type="checkbox"/> Full-time permanent | c) <input type="checkbox"/> Part-time Permanent | e) <input type="checkbox"/> Contract |
| b) <input type="checkbox"/> Full-time temporary | d) <input type="checkbox"/> Part-time Temporary | f) <input type="checkbox"/> Casual |
| g) <input type="checkbox"/> Paid Apprenticeship | h) <input type="checkbox"/> Paid Co-op | i) <input type="checkbox"/> Seasonal |
| j) <input type="checkbox"/> Summer Employment (choose this if you are currently studying and know that you will be working only during the summer months and not during the academic year) | | |

25) What type of work do you do? (Please choose the category that best fits your job)

- | | | |
|---------------------------|----------------------------------|----------------|
| a) Security/Corrections | c) Retail/Customer service/Sales | e) Healthcare |
| b) Restaurant/Hospitality | d) Office/Administrative | f) Education |
| g) Health and fitness | h) Construction/Factory/Trade | i) Agriculture |
| j) Computers/Internet | k) Media/Communications | l) Automotive |
| m) Childcare/recreation | n) Accounting/Finance | o) Government |

p) Other: _____

26) How long have you been with your current employer (in years)? _____

27) On average, how many hours do you work in a week? _____

28) What is your *expected* annual gross salary for 2007? (only numbers) \$ _____

29a) For the purposes of this study, *underemployment* is defined as “employed at a lower level than your education and work experience warrants.”

As such, would you consider yourself to be underemployed at this time? ☐ Yes ☐ No

29b) If Yes, please discuss whether your career is progressing as it should be in terms of responsibility and salary based on your education and work experience:

29c) If no, please explain why you do not consider yourself to be underemployed at this time:

30a) Does your current employment build upon your post-secondary program?

☐ Yes ☐ No

30b) If yes, please elaborate: _____

30c) If no, is this a choice on your part or are you unable to find work in your field? (Please discuss.)

31a) In the next 5 years, where do you see yourself in terms of your career? Please elaborate:

31b) Have these career goals changed in the past year? Have you made any progress? Please elaborate:

32a) Will your current employment help you to reach your career aspirations?

☐ Yes ☐ No

32b) If yes, please elaborate: _____

32c) If no, please elaborate: _____

33a) Have you disclosed that you have a LD at work? ☐ Yes ☐ No

33b) If yes, when did you disclose? _____

33c) If yes, was the reaction negative or positive? ☐ Negative ☐ Positive

Please elaborate: _____

33d) If no, why have you chosen not to disclose? _____

33e) If no, do you plan to inform your employer about your LD in the future?

☐ Yes ☐ No

34a) Do you use any accommodations (i.e. extended time to complete tasks) at work due to your LD? ☐ Yes ☐ No

34b) If yes, which ones specifically? _____

34c) If yes, how was your request for accommodations treated? _____

34d) If no, have you requested accommodations at work? ☐ Yes ☐ No

34e) If no, why not? _____

35a) Do you use any assistive technology to help you with your work on account of your LD?

☐ Yes ☐ No

35b) If yes, what type of assistive technology do you use? (choose any that apply)

a) ☐ Dragon Naturally Speaking

b) ☐ Inspirations

c) ☐ Kurzweil

d) ☐ Spell-checker

e) ☐ Palm Pilot

f) ☐ Others: _____

35c) If yes, did you:

- a) ☐ Request assistive technology to be provided by your workplace
- b) ☐ Install it yourself (i.e. bring in your own)

35d) If no, (you do not use any assistive technology to help you with your work), why not?

36a) Do you *currently* face any challenges related to your LD at work? ☐ Yes ☐ No

36b) If yes, what would you say are the biggest challenges you currently face at work?

37) Do you have a comfortable working relationship with your colleagues? ☐ Yes ☐ No

38a) Do you socialize with your colleagues outside of the workplace? ☐ Yes ☐ No

38b) If yes, how often do you socialize with your colleagues outside of the workplace?

- a) ☐ Less than once a week
- b) ☐ 1 to 3 times a week
- c) ☐ More than 3 times a week

39a) Are you satisfied with your job? ☐ Yes ☐ No
(Please elaborate on why or why not in the *Comments* section below.)

Please elaborate: _____

39b) Do you feel that you are achieving a healthy work/life balance? ☐ Yes ☐ No

Please elaborate: _____

IF YOU ARE CURRENTLY UNEMPLOYED

40) What has been your employment history since graduating or leaving school?

41a) Are there extenuating circumstances related to your unemployment? (i.e. health, injury, maternity leave)? ☐ Yes ☐ No

41b) If yes, what are they? _____

42a) Please rank in order of importance which factors you believe will help ensure a successful job search: (1 being the most important and 7 as least important)

- _____ Information Sessions/Workshops on employment skills/job search tools
- _____ Resume Reviews/Tutorials
- _____ Networking (i.e. job fairs)
- _____ Mock Interviews
- _____ Internet Job Sites
- _____ Campus Career Centre
- _____ Participation in a mentorship program

42b) Have you used any of the above strategies to help you find employment?

- ☐ Yes ☐ No

42c) If yes, which ones? _____

43a) Do you feel hindered in the workforce because of your LD? ☐ Yes ☐ No

43b) If yes, in what ways does your LD hinder you in the workforce? (chose any that apply)

- ☐ Difficult to gain access to the job that you want
- ☐ Prevents you from getting a promotion
- ☐ Slows down your speed of completing tasks when compared with other co-workers
- ☐ Makes it difficult to interact with your co-workers (i.e. you're self-conscious about your LD)
- ☐ Other _____

43c) If no, why not? _____

SECTION V: SOCIAL LIFE

44a) Do you do volunteer work? ☐ Yes ☐ No

44b) If yes, how many hours per month do you volunteer?

- a) ☐ 0-5 hours/month
- b) ☐ 6-10 hours/month
- c) ☐ 11-15 hours/month
- d) ☐ 16-20 hours/month

- e) ☐ 21-25 hours/month
- f) ☐ 26-30 hours/month
- g) ☐ over 30 hours/month

44c) If yes, what are your reasons for volunteering?

- a) ☐ Opportunity to helping others
- b) ☐ Sense of satisfaction
- c) ☐ Gain experience/skills for use in the paid workforce
- d) ☐ Opportunity to meet people
- e) ☐ Other _____

45a) Do you participate in a physical activity on a regular basis? ☐ Yes ☐ No

45b) If yes, what kind of exercise/physical activity do you do? (choose any that apply)

- a) ☐ Group sports/intramural teams (i.e. soccer, baseball, hockey)
- b) ☐ Individual sports (i.e. walking, running, martial arts, yoga, etc.)
- c) ☐ Recreational sports (i.e. work out at the gym, participate in an exercise class, etc.)
- d) ☐ Outdoor activities (i.e. camping, hiking, kayaking, etc.)
- e) ☐ Other: _____

45c) How often do you take part in a physical activity?

- a) ☐ 1-2 times a week
- b) ☐ 3-4 times a week
- c) ☐ 5-6 time a week
- d) ☐ More than 6 times a week

46) Would you describe yourself as more of a social person or solitary person?

Please explain if possible: _____

47) If you have free time, do you generally choose to spend it:

- a) ☐ With others
- b) ☐ Alone
- c) ☐ Both equally
- d) ☐ Don't have free time

LIVING ARRANGEMENTS

48a) Do you currently live with your parents? ☐ Yes ☐ No

48b) If yes, why:

- a) ☐ Financial reasons (i.e. can't afford to live on your own)
- b) ☐ Cultural reasons
- c) ☐ Still dependant upon parents (emotionally, etc.)
- d) ☐ Parents are dependent on you (i.e. you're taking care of your parents)
- e) ☐ Preferred living arrangement at this time

48c) Please elaborate: _____

48d) If no, please chose the answer that best describes your current living arrangement:

- a) ☐ In residence
- b) ☐ With spouse/partner and children
- c) ☐ With friends
- d) ☐ With family members (other than parents, spouse/partner and children)
- e) ☐ With spouse/partner
- f) ☐ With children
- g) ☐ Alone

48e) Please elaborate: _____

RELATIONSHIPS

49) Regarding your *friendships*, how would you rate your current level of satisfaction?

- a) ☐ Very Satisfied
- b) ☐ Satisfied
- c) ☐ Somewhat Satisfied
- d) ☐ Not satisfied
- e) ☐ Very Dissatisfied
- f) ☐ No friends

50) Regarding your *relationships* with spouse/partner/boyfriend/girlfriend, how would you rate your current level of satisfaction?

- a) ☐ Very Satisfied
- b) ☐ Satisfied
- c) ☐ Somewhat Satisfied

- d) ☐ Not satisfied
- e) ☐ Very Dissatisfied
- f) ☐ No relationships at this time

51) Regarding your relationships with *family* members, how would you rate your current level of satisfaction?

- a) ☐ Very Satisfied
- b) ☐ Satisfied
- c) ☐ Somewhat Satisfied
- d) ☐ Not satisfied
- e) ☐ Very Dissatisfied
- f) ☐ No family relationships at this time

52a) Do you face challenges in social situations as a result of your LD? ☐ Yes ☐ No

52b) If yes, what would you say are the biggest challenges you *currently* face in social situations due to your LD?

53a) Do you feel that your LD has given you an advantage in social situations?

- ☐ Yes ☐ No

53b) If yes, how?

54a) What kind of goals (other than career) do you wish to achieve in the near future? (i.e. in 5 years)

- a) ☐ Buy property (i.e. house, apartment, condo etc.)
- b) ☐ Get married
- c) ☐ Have a steady relationship
- d) ☐ Start a family
- e) ☐ Travel
- f) ☐ Finish school
- g) ☐ Pursue further education
- h) ☐ Be debt free
- i) ☐ Other: _____

54b) Please elaborate on your priorities: _____

IMPACT OF LEARNING DISABILITY

55a) Earlier in the survey, you were asked what specific challenges you currently face in terms of school, employment and social situations.

Are there any other ways you feel that your LD affects you at this time that you did not mention above? (i.e. your relationships with family and friends, grocery shopping, etc.)

☐ Yes ☐ No

55b) If yes, please elaborate: _____

56a) Do you feel that you have learned how to manage your LD? ☐ Yes ☐ No

56b) If yes, please describe the ways that you have managed your LD?

57) Are there any supports that you used in the pilot program (i.e. accommodations, assistive technology, learning strategies, etc.) which you do not have access to now but which you feel you would benefit from at this time?

58) Congratulations! You have now completed your 4th survey in a 10-year longitudinal study. We intend to continue to gauge your valuable responses, and to reward you – with a comprehensive report and a gift each year – for your contribution to this important research. Additionally, at the end of the study we will be giving a special gift to those participants who have been contributing to the study for its duration.

Thank you.

Do you intend to stay with Transitions for the full 10 years of the study? ☐ Yes ☐ No

Please elaborate: _____

SECTION VI: CONCLUSION

61) Additional comments/suggestions: _____

SECTION VII: CONTACT INFORMATION

Permanent Mailing Address:

Current Mailing Address:

Home Telephone #:

Alternate Telephone #:

Most Current Email:

Secondary Email:

THANK YOU!

A CONTEXT FOR *TRANSITIONS*

The Learning Opportunities Task Force (LOTF) permanently altered the post-secondary landscape for students with learning disabilities between 1998 and 2002. It is simply a statement of fact that the pilot programs established by LOTF during this period were unprecedented in the world. The Enhanced Service Fund and a number of innovative projects that have been entrenched since 2002 continue to position the Ministry of Training, Colleges and Universities as unique in the world for its provision of services to students with learning disabilities.

In 1997, LOTF was established under the leadership of Dr. Bette Stephenson, with the following mandate:

- To improve the transition of students with specific learning disabilities from secondary school to post-secondary education, and
- To enhance the services and supports that students with learning disabilities receive within the post-secondary educational sector, such that they can complete their education successfully.

Perhaps the most important fact to emphasise about LOTF's functioning during the pilot years is that all of its assumptions, programs, evaluations and ultimately its recommendations as reflected in its final report, were based upon research. LOTF was established as a research project in order to substantiate and monitor the progress it made towards creating a level playing field for post-secondary students with learning disabilities in Ontario.

Between 1998 and 2002, **1242** students met the very rigorous LOTF participation criteria, received pilot services, and participated in pilot projects' evaluation process, which resulted in over 3000 completed questionnaires. These facts made the LOTF project the largest research endeavour of its kind in the learning disabilities field, unique both in its depth of enquiry and the selection process of its participants.

In order to achieve baseline consistency for pilot participant evaluation measures, LOTF developed student Success Indicators, which are contained in the LOTF vision statement.

These indicators were first articulated as:

- entry into an academic programme of the student's choice, provided that the student meets standard entrance requirements;
- successful meeting of the essential requirements of the program, although the manner in which the student demonstrates mastery may be altered by academic accommodations, programme modifications or the use of coping and compensatory strategies, but with no change to standards or outcomes;
- graduation from the student's chosen program and institution;
- possession of the requisite skills to pass any licensing requirements, with appropriate accommodations, if needed, related to the field of study or career which he or she has chosen;
- being employment ready;
- being sufficiently job ready so that he or she can advocate for any job accommodations that may be required in order to obtain and maintain employment.

The primary vehicle for evaluating the student Success Indicators were the students themselves. The LOTF database contained more than 3000 student questionnaires collected as intake, progress and exit questionnaires over a period of four years.

The LOTF final report contains seven Key Findings and 24 Recommendations based on this empirical evidence. The first key finding reads as follows:

Students with learning disabilities are as able to succeed in post-secondary education as their non-disabled peers, provided that their transition to post-secondary education is appropriately facilitated.

This statement is a powerful endorsement of the success of LOTF initiatives during the pilot years. Consequently, the report articulates the following recommendation:

Proven transition programming should be available to students with learning disabilities who are going on to post-secondary education and are interested in participating in such opportunities.

Project Advance was a very successful comprehensive summer transition program that was created during the pilot years. LOTF established another seven programs at four colleges and three universities at the end of the pilot years, and these Summer Institutes have continued under MTCU along with Project Advance. Other innovative transition programs such as the Adopt-a-School continue under MTCU, all of which are intended to assist students with entry into post-secondary education.

Early during the pilot experience, LOTF recognised the need for comprehensive programming to assist with the transition from secondary to post-secondary education. However, it was only as the first cohort of LOTF pilot students began to graduate from post-secondary education that the need for transitional support into the work force became fully understood. Dealing with this realisation may become one of the most important contributions of this longitudinal study to the field of learning disabilities.

The Application of Knowledge

The pilot programs were well funded and students with learning disabilities were offered a comprehensive range of programs and services between 1998 and 2002. Pilot students consistently identified that, in addition to an improved understanding of their learning disabilities, they most valued:

- provision of learning strategy supports by appropriately qualified and engaged staff, and
- access to and instruction in assistive technology from staff with expertise in both the technology itself and learning disabilities.

Currently, all institutions provide services, supports, and accommodations to students with disabilities. These services are quite diverse and are funded by the Ministry's Accessibility Fund allocation. It was on the basis of these Key Findings and LOTF's preliminary recommendation to the Ministry of Training, Colleges and Universities that the Enhanced Services Fund (ESF) was created at all colleges and universities in Ontario in September, 2002. It is through this dedicated funding envelope that students with learning disabilities are provided with the support of knowledgeable Learning Strategists and Assistive Technologists.

Because of its intensive reliance on research upon which its key findings are based, LOTF was able to identify which components worked particularly well for students during the pilot years, and then apply that knowledge to its final report recommendations.

The supporting data for the creation of the Enhanced Services Fund is as follows:

- pilot institutions reported that 1120 pilot students utilised assistive technology and 1086 pilot students utilised learning and meta-cognitive strategies during the pilot period
- pilot students cited assistive technology and learning meta-cognitive strategies as the most useful program components provided to them by the pilot projects
- 86% of pilot students indicated that they had used and/or plan to use assistive technology
- 94% of pilot students indicated that they had used and/or plan to use learning strategy and meta-cognitive training supports

On the basis of research, LOTF was able to refine certain components from each of the unique pilot programs into a set of focused supports that best assist students with learning disabilities to become successful and independent learners. Many of the institutions providing these services include transition programming into and out of post-secondary education, self-advocacy training as well as career counselling and training in their Enhanced Services Projects. Thus, the justification for ESF funding was easy to produce and accountability is equally easy to establish at any given time. In fact, the Enhanced Services Fund was purposely established to set an exemplary standard of accountability to the Ministry of Training, Colleges and Universities. If completion of post-secondary education was all that persons with learning disabilities required in order to be successful, the present level of supports, accountability, and enquiry would suffice.

Beyond Success Indicators

As stated, all LOTF research and evaluations emphasised, above all else, input from pilot students with learning disabilities. The information gathered proved that all targeted Success Indicators were met. ESF continues to provide students with learning disabilities with comprehensive program components in a more focused fashion based on the pilot experience.

The six Success Indicators articulated in 1998 were certainly ambitious, particularly given the difficulties encountered by students leading up to the establishment of the pilots. Case in point, despite strong legislation in the form of Bill 82, and later in the Education Act, which requires school boards to identify and provide appropriate service to all students with special needs, over 80% of the pilot students arrived at college or university without adequate documentation.

As well, 35% of the pilot students repeated at least one grade, and only 56% were identified as having a learning disability within the primary or secondary school. Of these, 70% stated that they received some special education in elementary school, but in senior grades, there was significantly less help available—all of which is indicative of failure of the system to provide a proper level of specialised programming for which it was, and is, legislated. Not surprisingly, 85% of incoming pilot students reported that their learning disabilities mostly affect their academic functioning.

Thus the creation of the Learning Opportunities Task Force in 1997, with a five-year allocation of \$30 million, was based upon a fundamental assumption:

“There is an assumption that attending and graduating from post-secondary educational programs improve employment opportunities, which provide higher wages, which increases financial and personal independence and thus enhances the overall quality of the lives of its graduates; the question remains as to whether this assumption is true for young men and women who have learning disabilities.” (Levine and Nourse 231)

LOTF answered the first part of this question by achieving and often exceeding expectations related to Success Indicators. Answering the second half of this question, which is essentially related to *quality of life*, requires in-depth, follow-up research of the kind only available through the use of a longitudinal study, relying upon both quantitative and qualitative research methods:

“Studies that focus on isolated factors such as employment at a single point in time do not provide an adequate picture of a graduate’s situation. In order to understand adjustment patterns for individuals, we need to develop composite measures to examine multiple components as they interact.” Thus in addition to comparing multiple components using quantitative measures, “we need to employ qualitative analytic techniques to provide a much-needed look at the factors that affect long-term adjustment and paint a picture of post-school life that is currently unavailable, given the constraints of quantitative research methods.” (Levine and Nourse 231)

In the province of Ontario, we have concentrated our collective efforts on education for good reason. As students entered into jobs, careers and all facets of life after the pilot experience, LOTF was quite confident that they did so armed with real benefits to assist them in reaching their potential. We have continued with, and do not see any reason to be dissuaded from the assumption that what matters most in determining success, broadly speaking, is a good education appropriately applied.

Still, even as LOTF was satisfied with student achievement of Success Indicators, there were lingering questions about the success of students with learning disabilities after they left the pilot programs. However positive the educational experience, we know that learning disabilities are very much a life-long condition. Therefore, we could not help but wonder if we had accommodated and served students well, by not only helping them to pass into and out of post-secondary education, but also to attain the skills they need to become fully successful after their post-secondary years.

We asked ourselves if the effects of the pilot experience would continue beyond the achievement of Success Indicators. Most of all, we wondered if our pilot population had attained resiliency and permanent skills, and if the pilot experience offered students with learning disabilities the potential to improve their lives for themselves.

“What happens 5 years beyond the transition period, or 10 years beyond, has been of less concern to the field. Questions have arisen as to how adequately youth with learning disabilities served by special education are prepared to cope in later years, particularly after the major portion of services previously provided are no longer available. Some follow-up investigators have attempted to respond to this query, but the majority have simply combined data from youth in transition, youth in floundering period, and youth in their 20s who are well into the struggle of adjusting to adult life. It is clear that the expectations and realities for these different periods of time are quite different.” (Levine and Nourse 220)

The *Transitions* Longitudinal Study

The problem with asking these questions is that the answers do not come easily. The only way to know what happens in the post pilot years is to follow a significant percentage of the population for a period of some years. Longitudinal studies are not undertaken lightly. They tend to be expensive and difficult to conduct. In addition, contemplating doing a forensic audit, that is, studying a population that had disbanded for two full years by the time the study had begun, is highly unusual. Still, LOTF determined that the uniqueness of this research project and its population of students with learning disabilities was simply too important to risk not tapping into.

Consequently, the *Transitions* Longitudinal Study was launched with the following goals in mind:

- To inform persons with learning disabilities about their own potential and their continuing obstacles and successes in order to assist them in making positive changes for themselves throughout their lives.
- To inform government and policy makers about the needs and abilities of students and persons with learning disabilities in order to make a positive contribution to public policy and government sponsored programs and services, both in terms of fiscal responsibility and program effectiveness.
- To inform post-secondary institutions with the intent of influencing their existing and evolving programs for students with learning disabilities, primarily ESF.
- To inform prospective employers and government departments involved with job training and career and employment issues about the needs and abilities of adults with learning disabilities.
- Finally, as an overarching goal, to broaden and keep relevant the Ministry of Training, Colleges and Universities' body of knowledge and information, regarding the efficacy of specialized programs and services for students with learning disabilities.

In order to achieve these goals, *Transitions* decided to engage a population of post-pilot participants, and to conduct an annual survey asking questions in the following categories:

- Education—to assess participants' views about their LOTF and post-secondary experience from a more distant perspective, and if relevant, their current educational involvement.

- **Employment/Career**—to investigate the successes and areas of difficulty participants are experiencing in the labour market, and in finding career-related employment.
- **Social**—given that a learning disability is a life long condition, and affects areas of functioning other than education and employment, examining social relationships, living arrangements and how participants choose to spend their non-working time is essential to establishing a holistic profile of our population throughout the duration of the study.

Why choose to do a Longitudinal Study?

In order to evaluate former pilot students on the basis of education, employment, and social factors over an extended period of time, we chose to continue gathering data through the use of longitudinal surveys. A definition of the longitudinal design is an appropriate place to begin a discussion of methodology.

“Longitudinal designs are used to describe patterns of change in individuals (or other units of measurement) over time and to establish the direction (positive/negative, increasing/decreasing) and magnitude of relationships among conditions, events, treatments, and later outcomes as measured as dependent variables.” (Raskind et al. 267)

In utilising the longitudinal design, we are able to directly observe changes in our population through each phase and to attempt to describe and/or explain them. The three main types of longitudinal surveys are trend studies, cohort studies, and panel studies. Since we wished to contact the same sample of people each time and ask them similar questions, following the subjects forward in time, we chose to follow the model of a panel study. Although they are quite difficult to conduct, panel studies generate extremely specific and useful explanations.

It is worth noting that longitudinal research carries with it some potential risks, which have a strong impact on the research design. In fact, the various strengths and weaknesses of longitudinal research was the subject of an International Symposium in 1995.

“Participants acknowledged that longitudinal research involves a substantial investment of resources for a significant period of time. They considered it to be “risky business” as compared to short-term studies (i.e. 6 months), in the sense that it is “unclear as to how things will work out in the long run.” For example, longitudinal designs are at greater risk for subject attrition, and losing the necessary funds to complete a project. Therefore, participants stressed, everything possible must be done to obviate risk over time, including conducting longitudinal studies at institutions with high credibility, capability, and stability, as well as ensuring the presence of a stable funding mechanism. Although participants thoroughly acknowledged the problems and risks associated with longitudinal research, they agreed that only longitudinal designs have the power to answer certain questions.” (Raskind et al. 269)

What are these certain questions that only longitudinal designs can answer? Simply put, longitudinal research employs quantitative and qualitative data to help identify factors that impact on a population over a period of time.

“The concerns about the natural history of learning disabilities are of more than theoretical interest since they reflect directly on the validity and effectiveness of treatment programs. Furthermore, examination of the natural history of LD provides insights into whether or not observed changes are due to treatment effects or maturation. Long-term assessment, in addition to providing information about treatment efficacy, also provide insights into the extent to which the consequences of LD may be attenuated or accentuated by associated factors.” (Raskind et al. 269)

Important to an initial discussion of methodology, it must be noted that a good longitudinal design is dynamic - that is, it anticipates, allows for, and indeed embraces, continual change.

“Furthermore, the factors/variables under analysis may have to change across time. For example, an interview with questions about teaching and homework may be quite important in a longitudinal study of elementary school children with learning disabilities, yet at age 35 might be quite irrelevant to the subjects’ present contexts of interaction. Questions regarding work, independent living, marriage, and children are likely to have much greater import at 35.” (Raskind et al. 274)

It is the nature of change that is at the heart of longitudinal design. As change is noted and trends evolve, the *Transitions* longitudinal study will probe, with specific questions, areas of interest and concern. Ultimately, the longitudinal research design is about uncovering a portrait of its subjects through a series of comprehensive pictures taken at regular intervals.

Participants agreed that only through studying a broader spectrum of contexts and domains, and a variety of data sources, will we be able to see the whole picture and understand how the complex web of biological, and genetic factors interact with each other and particular environments to produce specific outcomes in persons with learning disabilities.” (Raskind et al. 274)