BETTER COUNTING: HOW MANY OUT OF WORK TECHIES IN OTTAWA STILL WANT WORK?

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Date: November 24th, 2006

SUMMARY AND INTRODUCTION

In late November 2006, Service Canada suddenly announced that the federal government funding for the Ottawa Talent Initiative would not be renewed for 2007; the current funding extends only up to December 31st 2006.

This decision was based on the mistaken view that Ottawa's high tech unemployment problem, starting with the layoffs in early 2001, had nearly or completely disappeared.

Further, industry leaders in Ottawa have been complaining about alleged "skill shortages". This has been happening amid obvious problems – as reported by people out of work, and by OTI - with large numbers still out of work. In addition to this, there have been more layoffs during 2006, which were apparently overlooked by Service Canada.

The latest OCRI number (for July 2006) of 78,100 versus 79,000 at the (OCRI) peak in December 2000, appears to some people to indicate a recovery. On occasion, the OCRI number has also been very close, or even identical to, the Statistics Canada number; at the time, this may have lent credibility to the OCRI number as being representative when OCRI is also an Ottawa-based organization. At other times, the OCRI number has differed widely from the Statistics Canada number; the trends in the numbers have also been very different. Since at least as far back as mid-1999, both sets have been reported in the media; the contradictions between them have caused continual confusion and controversy over the true situation.

The inferences that have been drawn suggesting a recovery are based on incomplete data and faulty arithmetic.

In particular, increases in the number employed have been interpreted as corresponding decreases in the number out of work.

This cannot have been the case in practice because of skill set mis-match problems involving the people out of work versus the positions becoming available. Some or all of the positions that became available at various times would have been filled by a mixture of new graduates, immigrants to Ottawa, or people who were previously unemployed (or on social assistance, for instance) who just happened to have the right skill sets at the time, for the new positions, as opposed to those caught in the layoffs who did not.

Further, an increase in the number employed is the difference between the number newly-employed and the number who lost jobs over the same period; thus a decrease of 1,000 could mean 3,000 layoffs partly compensated by 2,000 hirings where most or all of the 2,000 people hired did not include those laid off. In the same way, an increase of 1,000 could mean 3,000 hirings partly compensated by 2,000 layoffs – with nowhere to go for the 2,000 people laid off.

There are, of course, additional factors involved.

The causes of the present problem are:-

(a) Neither Statistics Canada nor OCRI has any proper system for counting the numbers out of work and wanting work, or tracking what happens to them.
(b) The problem is aggravated by persistent under-statements of the numbers unemployed in the monthly Labour Force Survey – as indicated in the "Ottawa's Hidden Workforce" report of Fall 1998, referred to else where.
(c) The overall problem is severely aggravated by the "under-employment" phenomenon. The usual numbers do not show the effects of this. A recent five-year survey by Statistics Canada suggests that only one in three Canadians aged 25 to 54 have jobs that fall into the category of "standard" full-time work. (reference: "The Ottawa Sun", March 30th 2006)
(d) Overlooking by everybody of basic principles of counting, fully understood by Grade 12 high school mathematics students in Ontario and introduced as early as Grade 6 in elementary school. The principles involve the theory of "sets" and Venn diagrams. The consequences of overlooking these, and how it leads to confusion and mistaken inferences – with examples - are analyzed in this document.

The solution to Ottawa's high tech unemployment problem is possible only if there is a proper appreciation of the numbers of people out of work and wanting work at any given time. Obviously, many other factors are involved but these are dealt with elsewhere.

NOTES CONCERNING THE SOURCE DATA:-

This document uses the graphs from "The Ottawa Citizen" article of July 13th 2006, "Behind the Numbers…". Previous versions of this document used OCRI and Statistics Canada data collected by the Ottawahitech online discussion group; the graphs in "The Ottawa Citizen" article fill in some significant gaps. There is quite good agreement between these graphs and the Statistics Canada numbers collected by Ottawahitech; the OCRI numbers collected by Ottawahitech agree exactly with the graphs. The numbers collected by Ottawahitech are given in Appendix 1, for comparison.

The original "Ottawa Citizen" graphs were drawn for the general public, as opposed to a definitive engineering or statistical analysis where a higher standard of accuracy is necessary. However the author considers them to be sufficiently good for present purposes. At present, time precludes verifying 7-8 years of monthly Statistics Canada numbers "at source", between mid 1999 and late 2006.

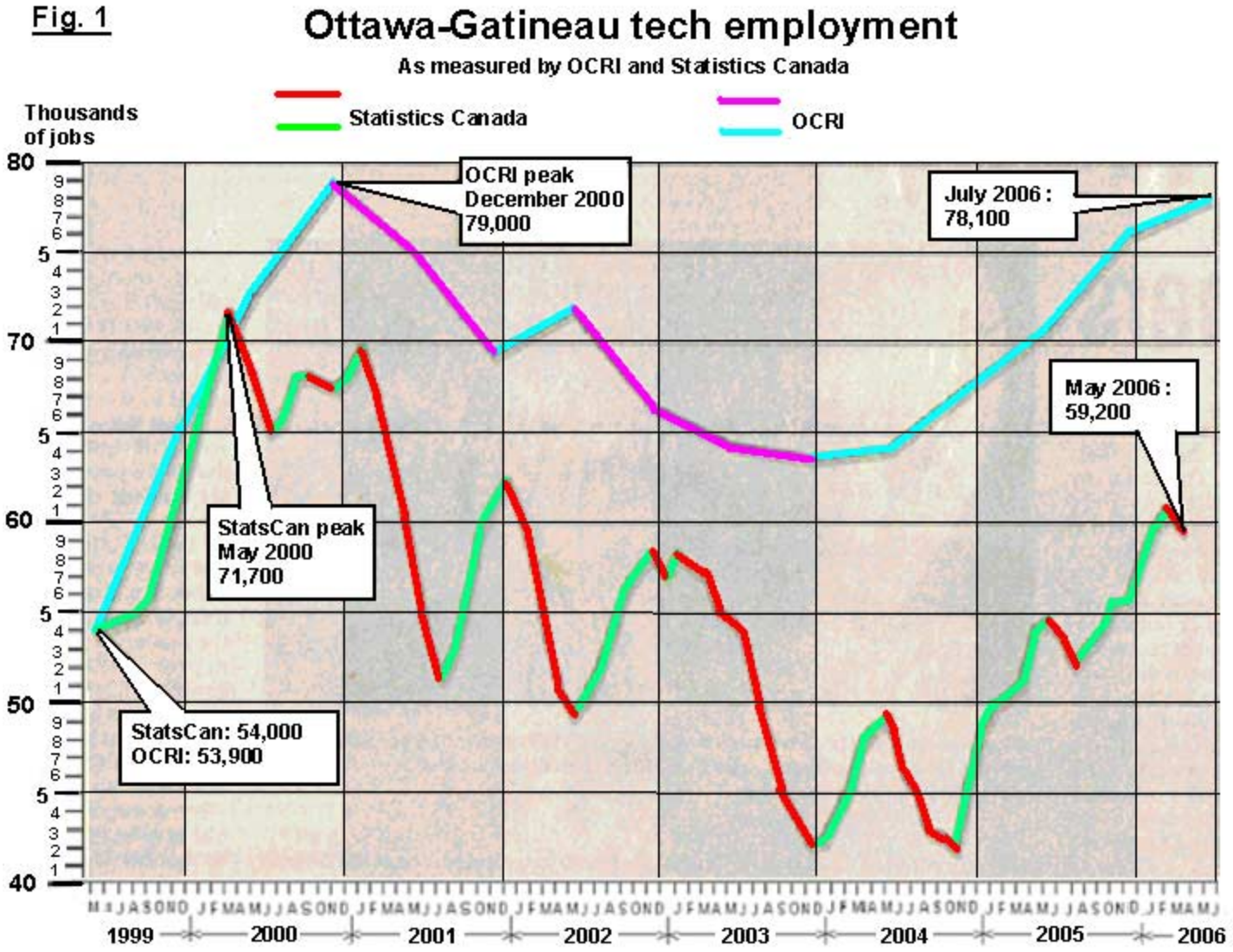
CONTENTS:-

TECH EMPLOYMENT NUMBERS IN OTTAWA: ACCORDING TO STATISTICS CANADA AND OCRI.

This document represents an attempt to summarize and make sense, to the extent possible, the information that has been seen to date.

The chart in Fig. 1, from "The Ottawa Citizen", summarizes the figures from Statistics Canada and OCRI between mid-1999 and mid 2006

Fig. 1



Notes: -

1. This is a computer-enhanced version of the graphs in "Behind the Numbers..." – from "The Ottawa Citizen" article July 13th 2006
2. In the original "Ottawa Citizen" graphs, the caption "OCRI peak June 2001" was incorrect; it should have read "OCRI peak December 2000" as shown here.

2. PAST AND PRESENT CONFUSION OVER THE NUMBERS: SUMMARY.

Some past instances of this are described below, how they might have arisen and how they relate to the summary in the charts above. The result of it, combined with lack of access to the information needed to get a clear picture of what was and is happening, is that nobody was ever able to determine with certainty the numbers of people laid off who were still seeking work; that is still the case now, 5 years after the hi-tech "slump" struck Ottawa's industries.

It will be seen later that a better system of counting is necessary, combined with proper attention to the conditions for creating the true numbers of jobs still needed.

Example 1.

Going back now to this:-
http://groups.yahoo.com/group/OttawaHiTech/message/1772

This posting on December 13th 2003 quotes an "Ottawa Citizen" newspaper article where the Mayor was interviewed and "…noted that 20,000 tech jobs have been lost...."; later on he is quoted as having said, "….while 20,000 tech jobs have been lost….primarily at Nortel and JDS … about 15,000 tech jobs have been created.."
It is not clear where he got the figure of 20,000 from, it may have been Nortel and JDS alone – not surprising, perhaps, since they were by far the biggest employers. He may also, amid many other concerns, have been referring to something else that particularly caught his attention, such as the summer 2002 Stats Can report by Geoff Bowlby and Stephanie Langlois **("English high tech.pdf")**.

In fact, based on Fig. 1, the trend in Stats Can figures shows, for example, that between February 2001 and July 2001 the numbers dropped from 69,500 to 51,500 – a drop of 18,000. Then if we look a the period December 2001 to May 2002 there was another decrease from 62,000 to 49,000 – a drop of 13,000. Thus based on these numbers there was an aggregate drop over the period May 2000 to May 2002 of 31,000 – but this was partly off-set by an increase from 51,500 to 62,000 between July 2001 and December 2001 (this equals 10,500); if we then assume that this figure of 10,500 represents 10,500 new jobs that all went to the people laid off between February 2001 and May 2002, then one might say – at best – that the number out of work in May 2002 was still (31,000 minus 10,500, which is…) 20,500 people – far removed from the Mayor's opinion in December 2003 that there were only 5,000 to 6,000 still out of work.

The Stats Can report by Bowlby and Langlois mentioned above quoted a drop of 18,000 between March 2001 and September 2001; as can be seen, the trend shown in Fig 1 agrees quite well with this.

The Kanata law firm Labarge Weinstein released a report on February 20, 2003 referring to 12,000 new jobs created and suggesting that "…the tech crash has had little visible impact in Ottawa ..".

It seems obvious from Fig. 1 where their figure of 12,000 might have come from. Obviously, however, that was only part of the picture. Further, with the benefit of hindsight, the optimism expressed in this report seems to have been mis-placed and coincided with the start of another big down-turn which lasted for almost all of 2003.

See **http://www.lwlaw.com/news/news_recov.htm**

It is not clear just what numbers the Mayor was using to conclude in December 2003 that only 5000 to 6,000 were still out of work; he may have used both Stats Can and OCRI numbers. Both sets of numbers were being reported in the media in spite of the differences in the trends. It was not and is not possible that both could be correct; in fact, neither can be said to indicate the number of people re-hired following a round of layoffs.

It is also not clear where the Mayor's figure of "15,000 tech jobs…created .." came from; 12,000 would seem to be a bit nearer the truth, if you refer to the Labarge Weinstein report mentioned above. Fig 1 shows aggregate increases of about 10,000 between June 2002 and January 2003, which may have been the basis of the Labarge Weinstein report . But what of the decrease of about 15,000 between January 2003 and November 2003 – just before the Mayor gave his interview in December 2003, noted above?

It appears that nobody had given the Mayor accurate and complete information. Further, it would appear that nobody was even in a position to give him correct and complete information. The conclusion above, concerning 20,500 – as an estimate of the number of people still out of work in May 2002 – is over-optimistic. This is partly because it assumes that all the people laid off in the down-turns were re-hired during the up-turns. Such an assumption, however, is not justified. The companies hiring during the up-turns were likely different, and so needed different skill sets, from those who had laid people off during the down-turns, leading to obvious skill-set mis-matches and hence no jobs for some or all of the people who were laid off.

Example 2.

The following message:-
http://groups.yahoo.com/group/OttawaHiTech/message/3454

- posted by jgillanders on June 1st 2004. This mentions a "Stats Can" peak of 70,300 in May 2000 (note - this conflicts with quotes elsewhere of 72,400 employed as at May 2000 based on the Stats Can figures, and "The Ottawa Citizen" 's own figure of 71,700 shown in Fig. 1). Based on this and the Stats Can figure quoted of 40,500 for February 2004, the message says "… That's a loss of 29,800 jobs….What has happened to all these people, we don't know…".

Nobody ever really knew and we still don't know now, in late 2006. For instance, some might have:-
(a) moved out of Ottawa
(b) "retired" – intentionally or otherwise
(c) got low-paying work, part-time low paying work, etc., not in any occupation classifiable within the term "high tech" or Stats Can 's ICT category.
(d) have "disappeared" by being re-categorised as "Not in the Labour Force"
(e) gone on social assistance
(f) died (probably a very small and negligible percentage of the total. WHY they died and the significance of this – that may be something else)

They went SOMEWHERE. Others, now a part of the numbers now labelled "employed" in Ottawa's hi tech sector, will have taken their place. The author will discuss this more in section 3 below.

Example 3.

The following message:-
http://groups.yahoo.com/group/OttawaHiTech/message/4695

-posted by ottawahitech on February 24th 2005, refers to statements by Jeffrey Dale, of OCRI, where the OCRI numbers show a drop from 79,000 at the peak down to 63,700 at the bottom (suggesting 15,300 net jobs lost), when at the same time he refers to 35,000 layoffs. The figure of 35,000 can only have been based on the Statistics Canada numbers. Even then, over 4 years after the trouble started, it seems that nobody in business or

government had done any fundamental work concerning how to properly count the numbers of people out of work and still looking for work This, in spite of the publication of "Ottawa's Hidden Workforce" in 1998 (**"OTHIDE98.pdf"**).

It is not possible that both numbers are correct; further, an increase in the number employed does not – by itself – represent a corresponding decrease in the number of people within a set (as used in a Venn diagram) who were let go prior to the increase in employment under discussion. This is because of the skill set mis-match problem already referred to. This point and others will be clarified further in section 3 below, using simple Venn diagrams.

Example 4.

http://groups.yahoo.com/group/OttawaHiTech/message/5527

- posted by oth on June 9th 2005.

This quotes an "Ottawa Citizen" article by Catherine McLean, on the same day. Among other things, it said that 3,500 people had turned to OTI for help since OTI was formed. This might suggest, to some people, that only about 3,500 high tech people were or are looking for work in Ottawa.

OTI, however, is / was a voluntary organization and nobody is under any legal obligation to sign up with them; the number who do is likely to be influenced by people's perception of whether this will be effective in terms of getting them work. If conditions are such that, over a significant period of time, only a small percentage of the people who signed up actually got work, then it is likely that the 3,500 people who used OTI's services would represent only a small fraction of those who were looking for work, or are still looking for work, in Ottawa. If more people were / are to persuaded of the merits of signing up with OTI – so that the count more nearly represents the true number of people affected – then it is necessary to see what can be done to make OTI more effective, which depends on influencing the set of conditions under which OTI has to operate, as well as contributing directly to the actual work that they are doing and meeting with employers – for instance, by becoming a member of their Business Engagement Task Force

Example 5.

This arises out of "Steering on Black Ice…" ("**blackice.pdf**") - the Carleton University report released in June 2005. This estimated the number still out of work at about 25,000 – many times more than the 3,500 client visits to OTI would suggest. Most of the references cited in this report are in fact newspaper articles, including one by J. Bagnell in "The Ottawa Citizen" on March 3rd this year, pages F4 and 5 , title "$500 Billion Later". This mentions a Stats Can figure of 72,400 in May 2000 and "…45,600 earlier this year for a net loss of 27,000 jobs…" (Note – the figure quoted of 45,600 would seem to be for January 2005 – see Appendix 1, which indicates 45,500) This report by Carleton University seems to the author to have constituted an attempt by a reputable University, based on advice and assistance from people known to him and the Ottawahitech group, to draw public attention to the true size of the problem and its continuation - in the face of controversy, widespread misinformation and attempts by some people to either obscure or minimize the problem, over the years since the trouble started.

We need only remind ourselves of "Ottawa's Hidden Workforce" of 1998, already mentioned, versus the monthly Labour Force Survey from Statistics Canada and suggestions in some media articles about people out of work for one year or more having "…given up looking for work…" or having "…dropped out of the labour force…" to see how such misinformation, or disinformation, is disseminated continually. Never mind other reports that we know about claiming "skill shortages" as the "basis" of "need" for immigration to Canada to the extent of about 300,000 people per year.

The "blackice.pdf" report's authors also seem to have run into the same problems as the Ottawahitech online discussion group, regarding lack of access to all the (government-owned) information necessary to making a correct count of the people affected. Thus the report quoted no statistics that were new to Ottawahitech or the author. In order to be able to produce some new and useful information, the authors would have had to commission a special survey which in turn would have probably have necessitated a change to their mandate and some significant funding from somewhere.

3. GETTING A CORRECT COUNT: CHALLENGES.

As has been seen, it would appear that the number of high tech people still seeking work in Ottawa in early 2005 might have been somewhere between 3,500 and 25,000 – never mind what the latest Statistics Canada or OCRI numbers then available might have suggested. In the Ottawahitech group, that is about the best answer we could have given anybody asking the question, "…well, how many of you are there still looking for jobs?…" , or some such.

Anyone in business, politics or government would probably have claimed that we didn't know what we were doing if we could not give a better answer than this - never mind the question of where or how the jobs might be found, along with the other issues involved. Yet the problem was not and is not Ottawahitech's fault.

From Fig. 1, the Stats Can figure for May 2006 of 59,200 is "only" 10,300 less than the 69,500 in February 2001, when the real trouble started. Some people might think this means that things are not as bad – or even that they are much better – indicating "… a recovery / rebound…." - relative to a few years ago. Unfortunately, any such assessment would be over-optimistic and fundamentally incorrect. The same comments would apply, even more so, to any comparison between OCRI' s figure of 78,100 for July 2006 versus their figure of 79,000 for the "peak" in December 2000

The author will do a brief review of the sources of error in the numbers available, and what the numbers mean - whether from OCRI, Stats Can or OTI.

The trends in the OCRI numbers are not representative at all of numbers laid off and subsequently re-hired, partly because OCRI's surveys are not designed for this purpose and OCRI appear to have no mandate to keep track of the numbers of people re-hired following layoff(s). This also became abundantly clear from "The Ottawa Citizen"'s article on July 13th 2006, "Behind the Numbers…", by James Bagnall and Andrew Mayeda; the problem had been evident to the Ottawahitech discussion group for several years prior to this.

The examples which follow will therefore use the Stats Can numbers, even though these are not much better.

The Employment Numbers - Example 1

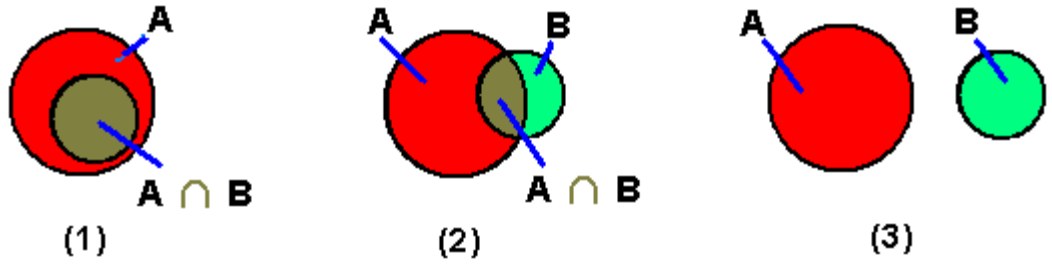
Consider the period May 2000 to November 2003. We will assume that nobody who was laid off left Ottawa during this period (we'll look at the effects of this in a later example).

First source of error: the Stats Can figures, released monthly, are not true monthly figures, in fact they are 3-month moving averages; thus the figure for May 2000, for instance, is the average for the months of March, April and May 2000. Statistics Canada claim that the "small" sample sizes in their telephone surveys make this approach more sensible, on the other hand it does cloud the picture in other ways. However this is arguably not a particularly important point with respect to the overall picture.

Second source of error: a drop in numbers employed (e.g. 1000) does not necessarily mean 1000 layoffs. It could also mean, for instance, 3000 layoffs partly balanced by 2000 hirings over the same period – where the 2000 people hired do not necessarily all come from the group of 3000 people laid off. This argument applies both over individual months and periods of years.

In Venn diagram terms (Fig. 2), for the whole period May 2000 to November 2003, there are three possibilities:-

Fig. 2



Remember that the people hired could be re-hires of people laid off (55,200 layoffs, in this example), new graduates coming off courses, immigrants to Ottawa who could be from elsewhere from within Canada or from outside Canada, unemployed people having skill sets to match the new jobs created – but not members of the original set **A** - and so on. In the diagram above, layoffs are the **red set A**, hirings are the **light green set B**. The best case (1) is where all the people hired are in fact re-hires from the set **A**, represented by **A∩B**. In this case the number still out of work is represented by **A** which is 55,200 minus 26,500 i.e. 28,700. This is based on the figures in Table 1, which come from Fig. 1.

Table 1. Numbers employed between May 2000 and November 2003

(a) Down-turns:-

Period	**Start / end**	**Net change**
May 2000 – July 2000	71,700 → 65,000	- 6,700
Sept 2000 – Nov. 2000	68,000 → 67,000	- 1,000
Feb. 2001 – July 2001	69,500 → 51,500	- 18,000
Dec. 2001 – May 2002	62,000 → 49,000	- 13,000
Nov. 2002 – Dec. 2002	58,000 → 56,500	- 1,500
Jan. 2003 – Nov. 2003	58,000 → 43,000	- 15,000
	Total	**- 55,200**

(b) Up-turns:-

Period	**Start / end**	**Net change**
July 2000 – Sept 2000	65,000 → 68,000	+ 3,000
Nov. 2000 – Feb. 2001	67,000 → 69,500	+ 2,500
July 2001 – Dec. 2001	51,500 → 62,000	+ 10,500
May 2002 – Nov. 2002	49,000 → 58,000	+ 9,000
Dec. 2002 – Jan. 2003	56,500 → 58,000	+ 1,500

Total	**+ 26,500**

Overall change = - 55,200 + 26,500 = - 28,700

Checksum: Number employed in May 2000 = 71,700
Number employed in Nov. 2003 = 43,000
So the net change May 2000 to Nov. 2003 was 43,000 minus 71,700 = - 28,700 – O.K.

The next best case (2) is where only some of the hirings are in fact re-hires from the set **A**. So where in this case did the set **B**, who were not re-hires, come from? For instance if **A∩B** was only 10,000 then **B** must have been 16,500 (so that, in this case, **B** must have represented 16,500 others – a mixture of new graduates coming off courses, immigrants to Ottawa who could be from elsewhere from within Canada or from outside Canada, unemployed people having skill sets to match the new jobs created – but not members of the set **A** - and so on). **A** would then have represented (55,200 minus 10,000 which is) 45,200 people still out of work, out of those laid off.

In the worst case (3), none of the people hired would have been re-hires from the original set **A**, leaving 55,200 still out of work

The Statistics Canada figures say nothing about **A∩B** , among other things.

The Employment Numbers - Example 2

Consider the period May 2000 to May 2006. This time we will include the effects of other factors, namely:-

(**a**) people who moved out of Ottawa
(**b**) people who have "retired" – intentionally or otherwise
(**c**) people who got low-paying work, part-time low paying work, etc., not in any occupation classifiable within the term "high tech" or Stats Can's ICT category.
(**d**) people who have "disappeared" by being re-categorised as "Not in the Labour Force"
(**e**) people who have gone on social assistance
(**f**) people who died (probably a very small and negligible percentage of the total. WHY they died and the significance of this – that may be something else)

There are no figures readily available for any of these groups (**a**) to (**f**), so it is necessary to make some guesses, but in any case the point of the exercise is to show further how the Statistics Canada numbers (or, for that matter, the OCRI numbers) fail to give any satisfactory indication of the numbers still actually seeking work out of a set of people laid off.

In the best case, all the people laid off (assumed to be represented by the red parts of the plot in Fig 1) during down-turns would have been re-hired during up-turns (assumed to be represented by the green parts of the plot in Fig. 1). If there were zero people to consider under the groups (**a**) to (**f**) above, then the number still out of work would be (71,700 minus 59,200) i.e. 12,500. Thus in this example there would still potentially have been 12,500 clients for OTI's services as at May 2006.

In one example of a "worst case" scenario, none of the people laid off during down-turns would have been rehired in Ottawa during up-turns, giving an aggregate total for people still out of work as at May 2006 represented by the total number of layoffs during down-turns (i.e. all the red parts of the plot). In this case the numbers involved would be those in Table 1 above plus some more shown in Table 2 below, giving a total of 67,500. This may in fact be nearer the truth because of the skill set mis-match problem referred to earlier.

Table 2. Numbers employed between May 2000 and May 2006

These will consist of the figures in Table 1 above, plus some more for the period November 2003 to May 2006, as follows:-

(a) Down-turns:-

Period	**Start / end**	**Net change**
Nov. 2003 – Dec. 2003	43,000 → 42,000	- 1,000
May 2004 – Oct. 2004	49,000 → 42,000	- 7,000
May 2005 – July 2005	54,500 → 52,000	- 2,500
Apr. 2006 – May 2006	61,000 → 59,200	- 1,800
	Total	**- 12,300**

(b) Up-turns:-

Period	**Start / end**	**Net change**
Dec. 2003 – May 2004	42,000 → 49,000	+ 7,000
Oct. 2004 – May 2005	42,000 → 54,500	+ 12,500
July 2005 – Apr. 2006	52,000 → 61,000	+ 9,000
	Total	**+ 28,500**

Total of down–turns May 2000 – May 2006 = 55,200 (from Table 1) + 12,300 = 67,500

Overall change Nov. 2003 – May 2006 = -12,300 + 28,500 = + 16,200
Hence overall change May 2000 – May 2006 = - 28,700 (from Table 1) + 16,200 = - 12,500

Checksum: Number employed in May 2000 = 71,700
Number employed in Nov. 2003 = 59,200
So the net change May 2000 to May 2006 was 59,200 minus 71,700 = - 12,500 – O.K.

Thus based on the above, there could have been 67,500 people still looking for work in Ottawa in May 2006, assuming that none of them are accounted for in any of the groups (**a**) to (**f**) above. But if we assume, for the sake of argument, the following breakdown of this number:-

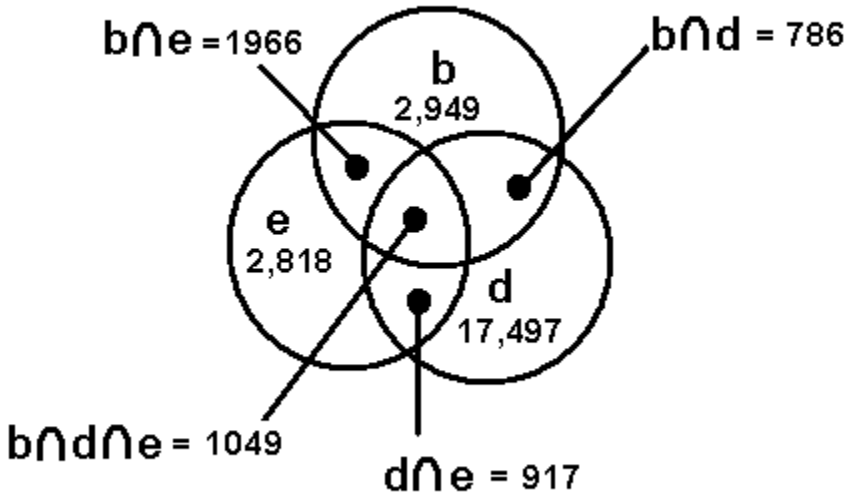
(**a**) 15% - 10, 125 people who moved out of Ottawa
(**b**) 10% - 6,750 people who have "retired" – intentionally or otherwise
(**c**) 20% - 13,500 people who got low-paying work, part-time low paying work, etc., not in any occupation classifiable within the term "high tech" or Stats Can's ICT category.
(**d**) 30% - 20,250 people who have "disappeared" by being re-categorised as "Not in the Labour Force"
(**e**) 10% - 6,750 people on social assistance
(**f**) 1% - 675 people who died

- a total of 86%. This still leaves 14% - 9,450 people – still in Ottawa, still looking for "high tech" work.

And this assumes that the numbers represented by the sets (**a**) to (**f**) can in fact be added, which is only partly true – for instance people in the sets (**b**) and (**e**) might also all be members of the set (**d**).

Another possibility, out of a large number of them involving all the basic sets (**a**) to (**f**) above, is the one represented in the Venn diagram below (Fig.3):-

Fig. 3



Note that in this example, for instance:-
(a) **b + b∩d + b∩e + b∩d∩e = 2,949 + 786 + 1966 + 1049 = 6750**

– the number in the set **b** if there were no overlaps between any of the original sets **b,d,e**

(b) Total number of people involved

= **b + d + e + b∩d + b∩e + d∩e + b∩d∩e**
= 2,949 + 17,497 + 2,818 + 786 + 1966 + 917 + 1049 = 27,982

- compared with a total of **33,750** people between the sets **b,d,e** if there were no overlap between any of these sets. Thus in this example we have "lost" **5,768** people **which must be compensated by adding this to the previous figure of 9,450 still in Ottawa, still looking for high tech. work, for a new total of 15,218.**

After summing the effects of all the possible errors of the type just discussed, the effective total would be much less than 86%, leading to a corresponding increase from 14% in the number of people still in Ottawa, still looking for work, out of the **67,500** total layoffs.

The above uses Ontario high school level mathematics - but nobody in business, government, politics or the media seems to have considered it, with respect to Ottawa's high tech unemployment problem. The problem is compounded by the apparent non-availability "at source" – Stats Can - of the information necessary to a proper analysis.

In addition to this, the so-called "official" unemployment numbers in the monthly Labour Force Survey(s) from Stats Can appear to under-state the true size of the unemployment problem by a factor of about 3, based on the "Ottawa's Hidden Workforce" Report of Fall 1998. This report estimated that 38% of people classed by Statistics Canada as "Not in the Labour Force" - i.e. 80,500 people out of 211,600 so classified - are in fact , in practical terms, unemployed; about 65% of these people ("hidden unemployed") are either "discouraged workers" or employable social assistance recipients. This is never mentioned in the monthly Labour Force Survey. The "official" unemployed accounted for only 38,800 people out of an official "labour force" of 442,500 (in Ottawa, NOT Ottawa-Gatineau).

Therefore, the overall effect of considering just the usual numbers will be to give an unjustifiably optimistic picture concerning the numbers out of work and / or re-hired.

The problem for the authors of the June 2005 Carleton University report "blackice.pdf" would have been one of being able to collect all the information necessary to such an analysis. Is it possible, based on what we've seen, that their estimate of 25,000 still out of work in early 2005 was correct? Certainly.

Some other completely hypothetical possibilities have been examined, but where the numbers still add up. Who would know the correct figures to use, for any given date? How are we supposed to find out?

General.

To conclude, the Statistics Canada figures don't really tell us anything useful at all about the number of people out of work in a defined set of occupations ("high tech") within a complete local work force (containing all occupations from all trades and professions), for instance Ottawa. This is likely to be more true after a period of years where a local work force has become partly composed of new hires replacing those present at the start of the period under discussion, with some of the people laid off in down-turns during that period moving away, going on social assistance, being forced into low-paid work outside the defined set of occupations (in this case "high tech"), and so on.

Additional points.

1. Obviously, the Statistics Canada figures also show nothing about deterioration in job security affecting people stuck with short-term jobs, meaning a rapid succession of hirings and layoffs over a short time frame.

2. If we now look at **http://groups.yahoo.com/group/OttawaHiTech/message/6512 ,** we find a further source of confusion where, on more than one occasion, OCRI have claimed that there are more hi-tech companies than are actually listed in their own directory and many more hi-tech employees than are reported in OCRI's own publication. In January 2003 they reported to the press that 66,500 people were employed in high tech whereas the apparent sum of all the employees from all the companies in their own directory was only 50,241. OCRI, like everyone else, also has no system for counting properly the number of people still out of work and wanting work.

3. Media reports also completely fail to take account of the basic factors which affect the count of people out of work and wanting work, discussed in this section, because of the same problems with poor information "at source". Thus erroneous reports, in which increases in the number employed are assumed to mean corresponding decreases in the numbers out of work, often appear.

4. CONCLUSIONS: WHAT SHOULD WE DO NOW?

The need for a proper count, or at least a better count, is obvious and has been obvious for a long time.

Also, doing a better count must be seen as a means to an end, not an end in itself. The objective would be to draw attention to the real number of people left in Ottawa still out of work and wanting work, as an integral part of an overall effort to get them all work.

This leads to the obvious conclusion that a suitable database is needed, containing details of all the people affected. If there was one, the question of whether the Stats Can or OCRI numbers should be used to count the people affected becomes irrelevant. This in fact seems to have been recognized for a long time now, as evidenced by the existence of OTI's own count of client visits – even though this likely represents a fairly small fraction of the real need.

In terms of the overall challenge – getting everybody back to work – there are of course many additional and extremely serious issues to deal with, but these have been / are being discussed elsewhere.

Robert T. Chisholm, Ottawa, November 24th 2006

(Appendix 1 starts on the next page)

APPENDIX 1 - TABLES FOR NUMBERS "EMPLOYED" – STATISTICS CANADA AND OCRI

Almost all the numbers below came from messages posted to Ottawahitech, where Statistics Canada or OCRI numbers were quoted. I found discrepancies between a few of the numbers quoted but was able to resolve these by cross-checking and / or reference to the source – for instance, the OCRI web site for some of the OCRI numbers. Some Statistics Canada numbers are missing - the inevitable result of irregular monitoring, at least in the beginning, on account of people having more pressing concerns.

The author wishes to thank Josh Korn, Sandra Lifshitz, ruthin26 , Jeanne Gillanders and everybody else who at various times posted Statistics Canada and OCRI figures for the employment numbers to the group. There are some minor discrepancies relative to Fig 1, but the author considers these to be relatively unimportant at this time.

STATISTICS CANADA:-

Year and month	Number employed
May 2000	72,400 (70,300 ?)
March 2001	69,000
April 2001	
May 2001	
June 2001	
July 2001	
August 2001	
September 2001	51,000
October 2001	
November 2001	
December 2001	48,000
January 2002	
February 2002	
March 2002	
April 2002	
May 2002	
June 2002	
July 2002	47,000
August 2002	48,700
September 2002	
October 2002	
November 2002	56,900
December 2002	
January 2003	58,700
February 2003	57,100
March 2003	56,700
April 2003	55,800
May 2003	55,200
June 2003	53,600
July 2003	53,000

Year and month	Number employed
August 2003	52,800
September 2003	50,800
October 2003	48,000
November 2003	45,300
December 2003	43,300
January 2004	41,700
February 2004	40,400
March 2004	41,300
April 2004	42,200
May 2004	45,500
June 2004	46,200
July 2004	47,500
August 2004	45,300
September 2004	44,600
October 2004	42,400
November 2004	42,200
December 2004	42,200
January 2005	45,500
February 2005	48,600
March 2005	
April 2005	50,100
May 2005	51,100
June 2005	54,200
July 2005	54,600
August 2005	53,700
September 2005	52,100
October 2005	53,000

OCRI:-

Year and month	Number employed	Year and month	Number employed
June 2000	73,000	June 2003	64,500
December 2000	69,000	December 2003	63,700
June 2001	75,000	June 2004	64,200
December 2001	69,500	December 2004	64,800
June 2002	72,000	June 2005	71,000
December 2002	66,500		