

**Office of the Independent Monitor***Study of the Accuracy of District Data on Timely Completion of Evaluations*

Outcome 10 focuses on the timely completion of initial evaluations. The state of California requires that all initial evaluations be conducted and the IEP held within 60 calendar days upon the receipt of the signed assessment plan. During the 2003-2004 school year, the parties agreed to the following outcome for determining the Los Angeles Unified School District's (District) compliance with the Modified Consent Decree (MCD). The outcome states:

By the end of the 2005-2006 school year:

- a. 90% of all initial evaluations shall be completed within 60 days.
- b. 95% of all initial evaluations shall be completed within 75 days.
- c. 98% of all initial evaluations shall be completed within 90 days.

An initial evaluation is any evaluation other than a District Initiated three-year reevaluation. Completion means that the evaluation has been completed and an IEP meeting convened. If the evaluation or IEP meeting is delayed because of parent request or the child is unavailable for testing, the completion period shall be extended by the period of such parental request or unavailability.

In addition to monitoring progress toward the Timely Evaluations (TE) outcome, the Independent Monitor is required to "verify the accuracy of the District's data required to measure the District's performance and to make determinations only on data that the Independent Monitor finds accurate."<sup>1</sup> This study validates the accuracy of the District's Timely Evaluation data for making a determination on Outcome 7.

**Background**

During the 2003-2004 school year, the parties negotiated the performance outcomes to determine compliance with Outcome 10 of the MCD. During this time, the District reported 66% of IEPs completed within the State of California's timeframe of 50 calendar days. During the 2005-2006 school year, the State of California aligned the timeframe for compliance for the timely completion of initial evaluations to comply with the Federal requirements of 60 days. This change may have contributed to the substantial increase (86%) in the District's performance of initial evaluations completed on time.

Concerns regarding the accuracy of the District's data for this Outcome have been noted since the inception of the MCD. Improvements with Timely Evaluation data have been noted yearly and may be associated with the overall improvements in the quality and accuracy of data of the Welligent system. During the 2006-2007 school year, the OIM conducted a study to measure the accuracy of the District's data for measuring compliance with the MCD.

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<sup>1</sup> Modified Consent Decree, 3.18

## **2006-2007 Timely Evaluation of Initial IEP Study**

This study was guided by the following research questions and methodology.

### *Research Questions*

The 2006-2007 study focused on the following questions:

1. Are there discrepancies between the *date* of the signed assessment plan as reported by the Welligent IEP data system from the *date* of the signed assessment plan within the student's IEP file?
2. Are there discrepancies between the *date* of the IEP meeting as reported by the Welligent IEP data system from the *date* of the IEP meeting within the student's IEP file?
3. Are there discrepancies between the timely completion categories calculated in Welligent from the timely completion categories calculated from date of the signed assessment plan and IEP meeting date in a student's IEP file?
4. Do any discrepancies between the timeline categories in Welligent and in student's IEP file have any impact on the overall calculation of completed timely evaluations for Outcomes 10?

### **Methodology**

Determination of timeliness of initial evaluations requires two essential pieces of information. The first is the date of the school's receipt of the signed assessment plan. Upon receipt of the signed assessment plan, compliance timelines begin. The second is the date of the IEP meeting. Once the IEP meeting is conducted the timeline concludes. Timeliness categories are determined by the total number of days required to conduct the IEP meeting upon the school's receipt of parental consent to assess, or the signed assessment plan.

The Welligent system automatically calculates timeliness of evaluations based on the IEP due date. The IEP due date is calculated based on the date of the receipt of the signed assessment plan date entered into the Welligent system by school site personnel. The Welligent program then identifies the IEP due date and then calculates timeliness based on the IEP meeting date. For instance, if the IEP meeting was held prior to the IEP due date, the IEP was considered completed within the 60 day timeline. The program accounts for and excludes calendar days that occur during school breaks such as off-track vacation days, school vacation periods over 10 calendar days, and vacation days as a result of a track change. For the purpose of this report, these days will be referred to as non-school calendar days.

During the 2006-2007 school year, the District provided the OIM a Welligent data extract of students that received an initial evaluation IEP. The extract included relevant information such as: date of receipt of the signed assessment plan, IEP meeting date, and track information for each student.

To validate the accuracy of Timely Evaluation of IEP Welligent data, the OIM developed methodology to identify discrepancies between Welligent and data found in the student's IEP

file. The student’s IEP file should contain hardcopies of the signed assessment plan and date of the initial IEP, and is typically found at the school site in the student’s cumulative record file. In order to compare the timeliness of initial evaluations data reported by the Welligent, students’ IEP files were reviewed to collect the primary following information: date of signed assessment plans; date of IEP meetings; IEP notification forms for rescheduled IEPs; and track information. Total number of days to complete initial evaluations were then calculated and assigned to a timeliness category for comparison with the category assigned by the Welligent system.

Limitations to this study included differences in the calculation method for determining timeliness of evaluations. For example, the District calculates timeliness by identifying the due date based on the date of the signed assessment plan, and then counting back to the date of the IEP meeting. This process includes non-school calendar days and based on the difference between the IEP due date and IEP meeting date assigns a number of days. For those IEPs completed within the 60 day timeline, a negative number is assigned. However, since non-school calendar days are also included it is possible for IEPs to be completed with negative days over 60. This resulted in difficulties in the validation of the accuracy of data for the number of days required to complete the initial evaluation and limited the methodology to validate the accuracy of timeliness categories.

*Sampling Design*

The objective of the sampling strategy was to obtain a representative sample of newly completed initial IEPs by local district, school level, and disability type. Welligent databases were provided by the District and were used to draw students for the Timely Evaluation study during four periods of the 2006-2007 school year.

Tables 1, 2 and 3 show the final distributions of the overall TE sample (N=1,372) across local school districts, school level and disability type.

Table 1: Distribution of Students in the Timely Evaluation Analysis by Local District

<b>Local District</b>	<b>N</b>	<b>%</b>
1	278	20.30%
2	213	15.51%
3	149	10.85%
4	166	12.09%
5	184	13.40%
6	117	8.52%
7	114	8.30%
8	151	11.00%
<b>Total</b>	<b>1,372</b>	<b>100%</b>

Table 2: Distribution of Students in the Timely Evaluation Analysis by School Level

School Level	N	%
Elementary	1,207	87.96%
Middle	92	6.70%
High	63	4.59%
Spec Centers	10	0.73%
<b>Total</b>	<b>1,372</b>	<b>100.0%</b>

Table 3: Distribution of Students in the Timely Evaluation Analysis by High and Low Incidence Disabilities\*

High/Low Incidence Disabilities	N	%
High Incidence	956	69.70%
Low Incidence	416	30.30%
<b>Total</b>	<b>1,372</b>	<b>100%</b>

\* Specific Learning Disabilities and Speech and Language Impairment are considered high incidence disabilities for this analysis. All others are low incidence.

### *Data Collection and Analysis*

Research assistants (RAs) were trained to extract the necessary information from a student’s cumulative and IEP files and place the information on an instrument developed by the OIM (Attachment A). RAs collected dates of signed assessment plans, IEP meeting dates, IEP reschedule dates, and student track information. RAs were instructed to identify the date of the signed assessment plan from the original hardcopy of the assessment plan found in the student’s IEP file. If signed hardcopies were not available, RAs were instructed to obtain dates from school personnel from the Welligent system or another source. IEP meeting dates and track information were obtained from the student’s IEP. RAs were also instructed to collect any information regarding the re-scheduling of an IEP. This information was obtained primarily from the IEP notification form. Each school received a phone call and fax at least one week prior to the visit containing a list of students that would be collected for each student. RAs were not required to interpret IEPs but to enter information exactly as it appeared.

Data collected from schools was analyzed to determine the total number of calendar days required to complete the initial IEP. As aforementioned, this differed from the District’s calculation. To determine timeliness of completion, the date of the signed assessment plan was derived from the student’s IEP file. The date of the signed assessment plan was obtained first from the hardcopy of the assessment plan, if available. If the original assessment plan was not available or lacked the date, school personnel were asked to provide evidence of the receipt of the signed assessment plan from the Welligent or another source. Upon identification of the assessment plan date, the IEP meeting date was determined, and changes in the IEP dates were noted along with reasons for such requests (i.e., parent request, school request, or no information). When both the date of the signed assessment plan and IEP meeting date were determined, the total number of days to complete the initial evaluation was counted from the date

of the signed assessment plan. Non-school calendar days were excluded in this count; however, non-school calendar days were identified and accounted for. This means that even if a student had a vacation period during the evaluation time, this did not add to the number of days it took to complete the IEP in order to correspond with the values of the timeliness categories. To account for non-school calendar days, multi-track and traditional school calendars, as well as student track information was used.

Upon the determination of total days to complete the IEP, students were assigned to one of four timeliness categories: within 60 days; 61-75 days; 76-90 days; and over 90 days. Student category data was then compared to category data from the Welligent system.

Each student file was reviewed at least two times by separate reviewers in order to establish inter-rater reliability and ensure consistency of IEP completion time. This information was then entered into a timely evaluation database and sent to the American Institute of Research (AIR) and Dr. Peter Goldschmidt for analyses.

## **Findings**

This section examines whether the information on the timeliness of evaluations in Welligent matches the timeliness of evaluation information derived from the students' IEP files. In this section, we consider the following questions:

1. Are there discrepancies between the *date* of the signed assessment plan as reported by the Welligent IEP data system from the *date* of the signed assessment plan within the student's IEP file?
2. Are there discrepancies between the *date* of the IEP meeting as reported by the Welligent IEP data system from the *date* of the IEP meeting within the student's IEP file?
3. Are there discrepancies between the timely completion categories calculated in Welligent from the timely completion categories calculated from date of the signed assessment plan and IEP meeting date in a student's IEP file?
4. Do any discrepancies between the timeline categories in Welligent and in student's IEP file have any impact on the overall calculation of completed timely evaluations for Outcomes 10?

The accuracy of the date of the signed assessment plan is essential for determining the accuracy of the timeliness of an initial evaluation. Table 5 shows the number and percentage of matches between the data reported by Welligent and that found in the student's IEP file. Of those with both signed assessment dates found in the Welligent and IEP files, 68% had exact matches. Although this rate of matches is of concern, the primary area of concern is in the mean difference between both. The mean difference between the Welligent and IEP files was 10.15 days, meaning that the average difference of the non-matches was 10.15 days later than the date found in the signed assessment plan in the students IEP file. This has considerable implications since the Welligent program is highly dependent on the date of the signed assessment plan for determining the IEP due date. Basically, this means that for non-matches an average of an additional 10 days were allowed when determining timeliness of completions.

Table 5: Number and percentages of students whose date of signed Assessment Plan in the Welligent match the IEP

<b>Exact Matches</b>	<b>Welligent – IEP</b>	
	<b>N</b>	<b>%</b>
Matches	817	68%
Non-Matches	385	32%
<b>Total N</b>	<b>1202</b>	<b>100%</b>

Mean 10.15      Std. Deviation 34.443      Std. Error Mean 0.993

Table 6. shows the number and matches of the date of IEP meetings between Welligent and IEP files. More importantly, the differences between the non-matches is minimal with only a difference of less than a day between Welligent and the IEP file. Both the percentage of matches and the small differences may be associated with the direct relationship between the IEP meeting date entered in the Welligent and that of the IEP.

Table 6: Number and percentages of students whose date of the IEP meeting date in the Welligent match the IEP

<b>Exact Matches</b>	<b>Welligent – IEP</b>	
	<b>N</b>	<b>%</b>
Matches	1342	98%
Non-Matches	22	2%
<b>Total N</b>	<b>1364</b>	<b>100%</b>

Mean -0.75      Std. Deviation 15.844      Std. Error Mean 0.429

The following tables 7-9 show results by timeliness categories of initial IEPs by local district, school level and disability type. Table 7 shows local district 2 (94.8%) and local district 4 (90.3%) as the only districts meeting the 90% target for IEPs completed within 60 days. District's 3 (83.2%), 7 (79.6%) and 8 (80.8%) have the lowest rates of completion of initial IEPs within 60 days.

Table 7: Percentages of students within predefined time periods, by local district

Local District	Less than 60 Days		Between 61 and 75 Days		Between 76 and 90 Days		More than 90 Days	
	Students	%	Students	%	Students	%	Students	%
1	241	86.38%	21	7.53%	7	2.51%	10	3.58%
2	202	94.84%	4	1.88%	4	1.88%	3	1.41%
3	124	83.22%	12	8.05%	9	6.04%	4	2.68%
4	150	90.36%	8	4.82%	4	2.41%	4	2.41%
5	165	89.67%	12	6.52%	4	2.17%	3	1.63%
6	103	88.03%	9	7.69%	3	2.56%	2	1.71%
7	90	79.65%	19	16.81%	2	1.77%	2	1.77%
8	122	80.79%	15	9.93%	6	3.97%	8	5.30%
<b>Total</b>	<b>1,197</b>	<b>87.24%</b>	<b>100</b>	<b>7.29%</b>	<b>39</b>	<b>2.84%</b>	<b>36</b>	<b>2.62%</b>

Timeliness of initial IEP completion does not seem to appear to be impacted by school level (Table 8). It is important to note that the results for students in special education centers should be looked at with caution due to the small numbers of students reviewed. Furthermore, since this study looks at students with initial evaluations, this number will be minimal for students in special education centers.

Table 8: Percentages of students within predefined time periods, by school level

School Level	Less than 60 Days		Between 61 and 75 Days		Between 76 and 90 Days		More than 90 Days	
	Students	%	Students	%	Students	%	Students	%
Elementary	1,055	87.41%	92	7.62%	30	2.49%	30	2.49%
Middle	80	86.96%	3	3.26%	5	5.43%	4	4.35%
High	54	85.71%	3	4.76%	4	6.35%	2	3.17%
Spec Centers	8	80.00%	2	20.00%	0	0.00%	0	0.00%
<b>Total</b>	<b>1,197</b>	<b>87.24%</b>	<b>100</b>	<b>7.29%</b>	<b>39</b>	<b>2.84%</b>	<b>36</b>	<b>2.62%</b>

Table 9 shows the results of timely completion of initial IEPs by disability type.

Table 9: Percentages of students within predefined time periods, by High and Low Incidence Disabilities\*

High/Low Incidence Disabilities	Less than 60 Days		Between 61 and 75 Days		Between 76 and 90 Days		More than 90 Days	
	Students	%	Students	%	Students	%	Students	%
Low Incidence	354	85.10%	35	8.41%	14	3.37%	13	3.12%
High Incidence	843	88.18%	65	6.80%	25	2.62%	23	2.41%
<b>Total</b>	<b>1,197</b>	<b>87.24%</b>	<b>100</b>	<b>7.29%</b>	<b>39</b>	<b>2.84%</b>	<b>36</b>	<b>2.62%</b>

To determine if the discrepancies found between the Welligent system and the students' IEP files had an affect on the overall performance toward the outcomes, an analysis was conducted by Dr. Peter Goldschmidt (See Attachment B) to determine the reliability of the data by the four timeliness categories: within 60 days; 61-75 days; 76-90 days; and over 90 days. Again, it is important to note that this analysis does not look at exact matches, therefore allowing for minor variations in dates of signed assessment plans and IEP meetings. Essentially, this analysis only captures students with discrepancies large enough to place them into a different category.

Table 10 compares the number of cases from the Welligent data system to the findings from the OIM study. The table also includes the number of category matches and net difference in category. For example, the Welligent data system reported 1,301 cases of IEPs completed within the 60 day timeline while the OIM study found 1,182 cases that matched this category. As is expected, shift in categories were bilateral, meaning that while some of the cases originally in the within 60 day category shifted into other categories, while cases originating in another category shifted to the within 60 days. The difference presented in the table is the net difference found in the OIM study. As is noted in the table, there was a net difference of minus 104 cases within the 60 day category.

Table 10: Comparison of matches of Welligent and OIM findings, by category

	0-60 days		61-75 days		75-90 days		91 or more days	
	Welligent	OIM	Welligent	OIM	Welligent	OIM	Welligent	OIM
Count	1,301	1,997	45	100	14	39	12	36
Matches	1,182		34		8		4	
% matches	90.8%		75.5%		57.1%		33.3%	
Difference	-104		55		25		24	

Table 11 shows a comparison between the percent of cases by category between the Welligent and OIM findings. For example, the Welligent reported approximately 95% of students completed within the 60 day timeline, while the OIM found 87% of cases meeting this timeline. These findings may indicate that the Welligent system is overestimating the timeliness of initial IEP completions within the 60 day category.

Table 11: Percent of cases by category between the Welligent and OIM findings.

Data Source	Less than 60 Days		Between 61 and 75 Days		Between 76 and 90 Days		More than 90 Days	
	Students	%	Students	%	Students	%	Students	%
Welligent	1,301	94.83%	45	3.28%	14	1.02%	12	0.87%
OIM	1197	87.25%	100	7.29%	39	2.84%	36	2.62%

## Implications

Although the District appears to be very close to meeting the targets for this outcome, the results of this study highlight some concerns over the quality of TE data. As is noted, the percentage of IEPs reviewed in the study found to have been completed within the 60 day timeframe did not meet the target of 90%. The study found errors within the Welligent data that will continue to be examined during the 2007-2008 school year.

Some of these errors included differences in dates of receipt of assessment plans between the Welligent system and what was documented in the student's IEP folder. For example, in many instances where the date of the receipt of the assessment plan in the Welligent system did not match the date found in the IEP file, a later date was entered into the Welligent system. This error resulted in an inaccurate calculation of the completion date as it subsequently increased the 60 day timeline. This type of error is primarily a data entry concern since school personnel are required to maintain record of the receipt of the assessment plan and accurately enter that date into the Welligent system. This source of error is compounded with limitations observed within the Welligent system, as the program appears to have more than one field (i.e., management field and assessment plan form) where the date of receipt can be entered with no edits to auto-populate or cross-check these fields. Therefore, in some instances it was noted that dates between the management field and the assessment plan form did not match within the Welligent system.

Lastly, the method by which the District determines timeliness should be reviewed. The Welligent system is currently programmed to determine timeliness by first determining the due date of the IEP and counting backwards from that date. Although the programming within the Welligent system appears to account for all of the calendar nuances associated with multi-track schools, this process raises several concerns. First, once the program identifies the due date it assigns a negative number of days for those IEPs completed on time. However, the program includes non-school calendar days (i.e., vacation, off-track periods) therefore allowing for a number of negative days greater than -60 days. This creates a lack of one-to-one correspondence with the timeline categories and complicates the ability to verify the accuracy of data.

For example, in one instance the Welligent system showed a date of receipt of the signed assessment plan to be 8/31/06. The due date calculated by the Welligent system was 2/13/07. This due date was calculated for approximately 5 1/2 months after the date of the signed assessment plan which one may assume that even with track changes and vacation periods this calculation extends beyond the 60 day timeline. According to the Welligent calculation this IEP was conducted within the 60 day timeline and was coded as having been completed -117 days from the due date. Based on the OIM review and Welligent, the IEP meeting was held on 10/19/2006. This means the IEP was held within the 60 day timeline and 49 days after the receipt of the signed assessment plan. Again, although this IEP was held on time and was reported to have been held on time by the Welligent system, this methodology may be susceptible to error since a different IEP meeting date could have been entered up to 2/13/07 and found that IEP to have been held within the 60 day timeline. Furthermore this process limits our ability to verify the accuracy of the District's data in respect to the timeliness since it is essentially impossible to verify the accuracy on the number of days it took to complete the IEP.

The primary difference with the OIM's calculation to determine timeliness with initial evaluations is that the methodology relies on a count of the number of days to complete an IEP starting from the date of the receipt of the assessment plan and omits days associated with track changes and vacation periods. This calculation thereby establishes a one to one correspondence with the timeframes of the outcome. If the District elects to continue counting timeliness by counting back from the due date, it is highly recommended that the District omit days associated with track changes and vacation periods to facilitate the validation of District data. For example, by excluding all additional days each record could not have more than -60 days for IEPs held within the 60 day timeline, thereby establishing one-to one correspondence with the timeline categories.

Least Restrictive Environment

Student in LRE

Page 1

District ID#	Last Name	First Name	Birthday	Grade	Current IEP Date	IEP Date if different:
00000000	XXXXXX	XXXXXX	1/1/1994	7	9/20/2006	

Attend School: XXXXXXXXX Local District: 3  
IEP Meeting Location: \_\_\_\_\_

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Eligibility: SLD Eligibility if different: \_\_\_\_\_

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Performance area	Wk	Freq	Total	Month	Freq	Total	Minutes outside Gen Ed
1	<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____
2	<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____
3	<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____
4	<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____
5	<input type="checkbox"/>	_____	_____	<input type="checkbox"/>	_____	_____	_____

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Page 8 Missing Welligent Percent of Time:

Gen Ed  RSP  SDC (Minutes per Week): \_\_\_\_\_  DIS  Gen Ed/Inclusion % of time: \_\_\_\_\_

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1. # of Weekly District Policy Total School Minutes  2. # of Weekly Total School Minutes School Report

Parent Participation

Student in PP  Meeting Date  Attended IEP  Attended IEP Different \_\_\_\_\_

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Parent participated (If checked Stop)

Parent indicated not able to attend (Look for documentation to proceed)

Parent did not attend (Look for documention to proceed without them)

Parent notified 3 times (Look for documention of 3 attempts to notify)

Notification Form Present

1.  I intend, however, proceed (If checked indicate Yes)

2.  I cannot attend, send copy

3.  I intend, if unable, reschedule/phone conf. (If checked look for Contacts)

4.  Not convenient, reschedule

Evidence to convince: Yes/No \_\_\_\_\_

Initial Evaluations

Student in Evaluation  Calendar  Track  Break in Calendar

Assessment Plan	Page 10	Notification Form	Due Date	# of Days	0-60	61-75	76-90	Over 90
Sent Date	Meeting Date	Resched Date	<input type="text" value="10/3/2006"/>	<input type="text" value="47"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text" value="5/19/2006"/>	<input type="text" value="9/20/2006"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="56"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text" value="9/20/2006"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plan Date	Signature Date	<input type="text" value="Comments if rescheduled"/>						
<input type="text" value="5/19/2006"/>	<input type="text" value="9/20/2006"/>							
<input type="text" value="5/19/2006"/>	<input type="text" value="9/20/2006"/>							

## Evaluation of Welligent and OIM timeliness data

Pete Goldschmidt, Ph.D.

Using data provided by the OIM, this analysis examines whether the timeliness of evaluations in Welligent are accurate when compared to data compiled by the Independent Monitor. Specifically The analysis examines the differences in Welligent plan dates (plan\_date\_diff) and differences in signature meeting dates (mtg\_date\_diff). The analysis also examines whether Welligent and OIM data are consistent when using the specific time period classifications (0-60 days, 61-75 days, etc). The dataset consists of 1,374 cases<sup>2</sup>.

Table 1 displays the mean differences between Welligent and OIM in IEP (plan\_date\_diff) and signature plan meeting (mtg\_date\_diff) dates in days. The mean of 10.15 displayed in Table 1 for IEP meeting date indicates that the date in the Welligent system is on average 10 days later than the date based on OIM data. The mean difference for the signature meeting is -0.75, which indicates that the Welligent data is approximately 0.75 days earlier than the OIM data.

Table 1: Descriptive results for differences in recorded dates

	N	Mean	Std. Deviation	Std. Error Mean
plan_date_diff	1202	10.15	34.443	.993
mtg_date_diff	1364	-.75	15.844	.429

Table 2 displays the results of the *t*-test that tests the null hypothesis that the observed differences in dates between Welligent and OIM data is due to chance. The results in table 2 indicate that for the IEP meeting dates the null hypothesis can be rejected ( $p < .05$ ) and that Welligent is statistically significantly different from OIM data. The results in table 2 also indicate that the null hypothesis for signature meeting dates cannot be rejected and this implies that these dates are not statistically significantly different.

Table 2: T-test results for differences in recorded dates

	Test Value = 0							
	t		df	Sig. (2-tailed)	Mean Difference		95% Confidence Interval of the Difference	
	Lower	Upper	Lower	Upper	Lower	Upper		
plan_date_diff	10.222	1201	.000	10.155	8.21	12.10		
mtg_date_diff	-1.748	1363	.081	-.750	-1.59	.09		

The next analysis examines whether the classifications based on Welligent and OIM data are significantly different. This is accomplished by comparing the number of students in each category in the Welligent data and the OIM data. That is, a  $\chi^2$  test is used to determine whether the observed cross tabulated cell counts (e.g. 0-60 days based on Welligent and 0-60 days based

<sup>2</sup> There are some missing dates, but these are few enough to not affect results.

on OIM data) are significantly different from expected<sup>3</sup>. Table 3 presents the results. The results in table 3 indicate that there are differences between the actual crosstabulated counts and those expected. For example, based on the OIM data there are 1,197 students whose process was completed within 0-60 days. Based on the Welligent data this count should be 1,301. Hence, there should be approximately 1,135 students in the 0-60 (OIM) by 0-60 (Welligent) cell. Further, given the marginal distributions, there should be approximately 95 students in the 61-75 (OIM) by 0-60 (Welligent) cell. This latter cell implies that OIM data indicates that 100 cases required 61-75 days to complete and the Welligent system indicates that 65 of these cases took only 0-60 days to complete. The  $\chi^2$  test determines whether the actual cell counts differ significantly from the expected cell counts.

= Welligent Eval Time Period \* = OIM Eval Time Period Crosstabulation

		OIM Eval Time Period				Total	
		0-60 days	61-75 days	75-90 days	91 or more days	0-60 days	
Welligent Eval Time Period	0-60 days	Count	1182	65	27	27	1301
		Expected Count	1135.1	94.8	37.0	34.1	1301.0
	61-75 days	Count	6	34	1	4	45
		Expected Count	39.3	3.3	1.3	1.2	45.0
	75-90 days	Count	5	0	8	1	14
		Expected Count	12.2	1.0	.4	.4	14.0
	91 or more days	Count	4	1	3	4	12
		Expected Count	10.5	.9	.3	.3	12.0
Total		Count	1197	100	39	36	1372
		Expected Count	1197.0	100.0	39.0	36.0	1372.0

Table 4 presents the results of the  $\chi^2$  test. The results indicate that there is significant variation between actual and expected cell counts. This indicates that Welligent classifications differ statistically significantly from those derived by the OIM ( $p < .05$ ). This follows from the results presented in tables 1 and 2, as Welligent consistently reported delayed IEP meeting dates – shortening the time interval and resulting in too many cases classified into the 0-60 days category.

Table 4: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	557.670(a)	9	.000
Likelihood Ratio	229.840	9	.000
Linear-by-Linear Association	190.249	1	.000
N of Valid Cases	1372		

a 9 cells (56.3%) have expected count less than 5. The minimum expected count is .31.

<sup>3</sup> This is a goodness of fit test comparing Welligent against OIM data assuming OIM results are in fact correct.

Assuming the OIM data are correct, the Welligent data demonstrate significant abnormalities. This result likely stems from the average 10 day difference in IEP meeting dates, which then carries through to the classifications.