

A Comparison of the Special Education Data Contained in Welligent to Data Recorded in the Student Information System (SIS): Spring 2005

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The Need to Use Welligent for Consent Decree Reports: The data source used for reporting the progress of Students with Disabilities (SWDs) on the Modified Consent Decree (MCD) outcomes and benchmarks must provide comprehensive demographic information as well as program-specific data. The Los Angeles Unified School District (LAUSD) stores information on SWDs in two systems, the district-wide Student Information System (SIS) and Welligent, the online Individualized Education Plan (IEP) system. Each system has advantages and disadvantages as a data source for the Independent Monitor's reports. SIS contains approximately 98% of the SWD demographic information but has minimal data from IEPs. Welligent has all the data required for MCD reporting, but comprises approximately 66% of the total SWD population. Since SIS, the more complete system, lacks crucial data elements for the SWD population, and Welligent is the only system with all of the required data, the question addressed in this paper is: If Welligent is used for MCD reporting, will it provide a valid description of District progress toward meeting outcomes and benchmarks?

Comparison of SWD Sample Size in Welligent and SIS: The Welligent database, though more complete, is smaller than the SIS database. The District SWD population on April 15, 2005 was 87,535. Of this total population, SIS contained demographic and program code information on 98% or 85,708 SWDs while Welligent contained demographic and IEP information on 66% or 57,847. Welligent has a small number of records not in SIS (about 2% of the total SWD population). SIS has a large proportion of records, about 33% not contained in Welligent. Table 1 summarizes the number of records unique to each system and the number contained in both. The percent of records in each category is the percent of the total SWD population.

Table 1. Percent Duplicated, Unique and Total Records Contained in Welligent and SIS

SYSTEM	Number of Cases	Percent of Total SWD Population
Welligent sample in SIS	56,020	64%
Welligent sample NOT in SIS	1,827	2%
Total Welligent	57,847	66%
In SIS and in Welligent	56,020	64%
In SIS, but NOT in Welligent	29,688	34%
Total SIS	85,708	98%
Total population	87,535	100%

**Excludes 4 duplicate IDs in SIS*

Clearly, SIS has almost the entire population of SWD records. However, SIS lacks crucial special education data. Since Welligent is used to calculate progress toward a number of outcomes, we will examine key demographic characteristics of the population of both databases to determine whether Welligent adequately represents District SWD population. These variables include: disability, grade spans represented, gender, language proficiency (English Only, Fully English Proficient, Limited English Proficiency), native language for EL, and what kinds of schools or which local districts have the most data missing from Welligent. Should the differences between the two systems be minimal, using the smaller sample in Welligent will still provide representative and accurate reports. In areas where differences between the two systems are large, how the differences affect the interpretation of MCD assessments of progress toward the outcomes will need to be addressed.

A Comparison of Disability Categories Represented in Welligent and SIS: Do the disability categories in Welligent adequately represent the District population?

Table 2 displays the number of students by disability category in “Welligent”, “unique to SIS” and “Not in Welligent”, and compares the percentage of cases in each disability category to the SWD population (87,535). The table categorizes disabilities into “high incidence” which are Specific Learning Disability (SLD) and Speech and Language

Impairment (SLI). These “common” disabilities constitute approximately 71% of the District’s disability population. Low incidence disabilities are all other disabilities such as mental retardation or deafness. They comprise 29 % of the SWD population. Welligent’s distribution for low incidence is 28.7%. The difference between Welligent’s sample and the population is not practically significant. The two most frequently occurring disabilities, SLD and SLI, comprise 69.9% of the population and 70.7% of the Welligent sample. Again, the slightly higher percentage of cases in Welligent does not represent a real difference. Of the SWD data unique to SIS and not in Welligent, the difference between the percent of high incidence or low incidence disabilities and those in Welligent is under 2% and not practically significant.

Low Incidence Disabilities Comparable: Within the low incidence disabilities, Autism, Mental Retardation, and Other Health Impairment (OHI) have roughly comparable percentages of cases in both Welligent and the population. The difference between the two distributions in these categories is less than 1%. Welligent cases do not differ in any practical way from those Not in Welligent.

Emotional Disturbance (ED) Underrepresented in Welligent: The largest discrepancy in the distribution of low incidence disabilities among the three data sources (SIS, Welligent, and “SIS Cases Not in Welligent”) is in the category of emotionally disturbance. This is highlighted in Table 2. The ED population is 4.4%. Welligent reports an ED population of 2%, a discrepancy of 2.4%. And of the SIS cases not in Welligent, nearly 9% are ED. This discrepancy suggests that the population of students most likely to be underrepresented in Welligent is students with ED. As we examine the grade levels represented in Welligent and the geographic location of the “missing information”, we shall see that the students who traditionally are labeled ED (i.e. older, African-American males) are indeed underrepresented in Welligent.

High Incidence Disabilities Comparable: Consistent with state CASEMIS data, the overwhelming majority of SWDs are SLD. We see this same pattern in the “District Population”, “Cases In Welligent” and the “Cases Not in Welligent”. Over half of all

SWDs (57%) carry this classification. Welligent has slightly more than 1% more SLD cases than in the total population. Since the cases not in Welligent actually have a lower percentage of SLD students than the population (55% v. 57%), Welligent may be very slightly overrepresented in the SLD category. The difference, however, is less than 2%, a result that has no practical implications.

Figure 1 compares the percentage of Welligent cases to the Total Population and to those Not in Welligent graphically. The figure shows even more clearly than Table 2 how very similar the distribution of disabilities are among the three data sets with the exception of ED. Figure 2 graphically compares the three data sets for the two high incidence categories, SLD and SLI. Again, the similarities of the data sets are clearly highlighted.

Table 2. Percentage of Cases in Selected Disability Categories: Total Population, Welligent, Cases in SIS Not in Welligent

Table 2: Representation by disability category

SWD Category	Total Population	pct of total	In Welligent	pct of total	Difference from total pct	Ratio	Not in Welligent	pct of total	Difference from total pct	Ratio
low incidence Disabilities										
Multiple Disabilities/Deaf Blind*	2,045	2.34%	1,553	2.68%	-0.35%	1.15	492	1.66%	0.68%	0.71
Developmental Delay (DD)	1,609	1.84%	976	1.69%	0.15%	0.92	633	2.13%	-0.29%	1.16
EMD	45	0.05%	20	0.03%	0.02%	0.67	25	0.08%	-0.03%	1.64
Deaf/Hard of Hearing (D/HOH)	1,617	1.85%	1,051	1.82%	0.03%	0.98	566	1.91%	-0.06%	1.03
Autism (AUT)	5,362	6.13%	3,812	6.59%	-0.46%	1.08	1,550	5.22%	0.90%	0.85
Traumatic Brain Injury (TBI)	184	0.21%	116	0.20%	0.01%	0.95	68	0.23%	-0.02%	1.09
Emotional Disturbance (ED)	3,823	4.37%	1,159	2.00%	2.36%	0.46	2,664	8.97%	-4.61%	2.05
Mental Retardation (MR)	5,047	5.77%	3,643	6.30%	-0.53%	1.09	1,404	4.73%	1.04%	0.82
Orthopedic Impairment (OI)	901	1.03%	654	1.13%	-0.10%	1.10	247	0.83%	0.20%	0.81
Visual Impairment (VI/B/PP)	413	0.47%	265	0.46%	0.01%	0.97	148	0.50%	-0.03%	1.06
Other Health Impairment (OHI)	4,694	5.36%	3,322	5.74%	-0.38%	1.07	1,372	4.62%	0.74%	0.86
Total low incidence	25,740	29.41%	16,571	28.65%	0.76%	0.97	9,169	30.88%	-1.48%	1.05
high incidence Disabilities										
Specific Learning Disability (SLD)	50,050	57.18%	33,733	58.31%	-1.14%	1.02	16,317	54.96%	2.22%	0.96
Speech and Language (SLI)	11,102	12.68%	7,163	12.38%	0.30%	0.98	3,939	13.27%	-0.59%	1.05
Total high incidence	61,152	69.86%	40,896	70.70%	-0.84%	1.01	20,256	68.23%	1.63%	0.98
Unknown	643	0.73%	380	0.66%	0.08%	0.89	263	0.89%	-0.15%	1.21
Total	87,535		57,847				29,688			

* MDH/MDO/MDV/DI/DB

Figure 1:
Comparison of Welligent sample to the total population - low incidence disabilities

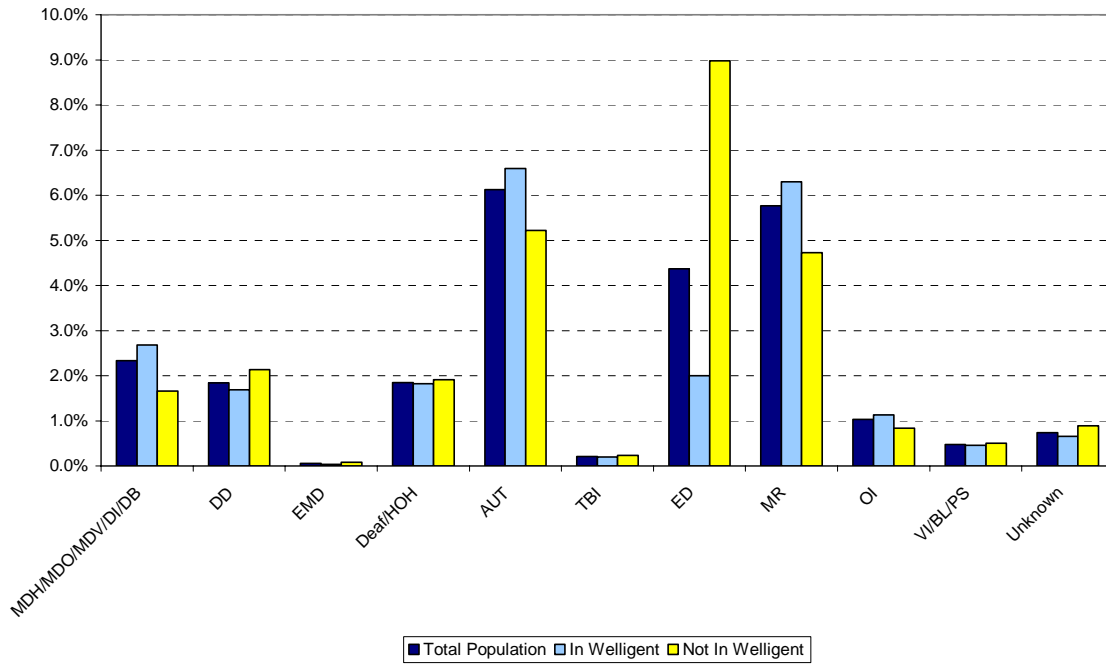
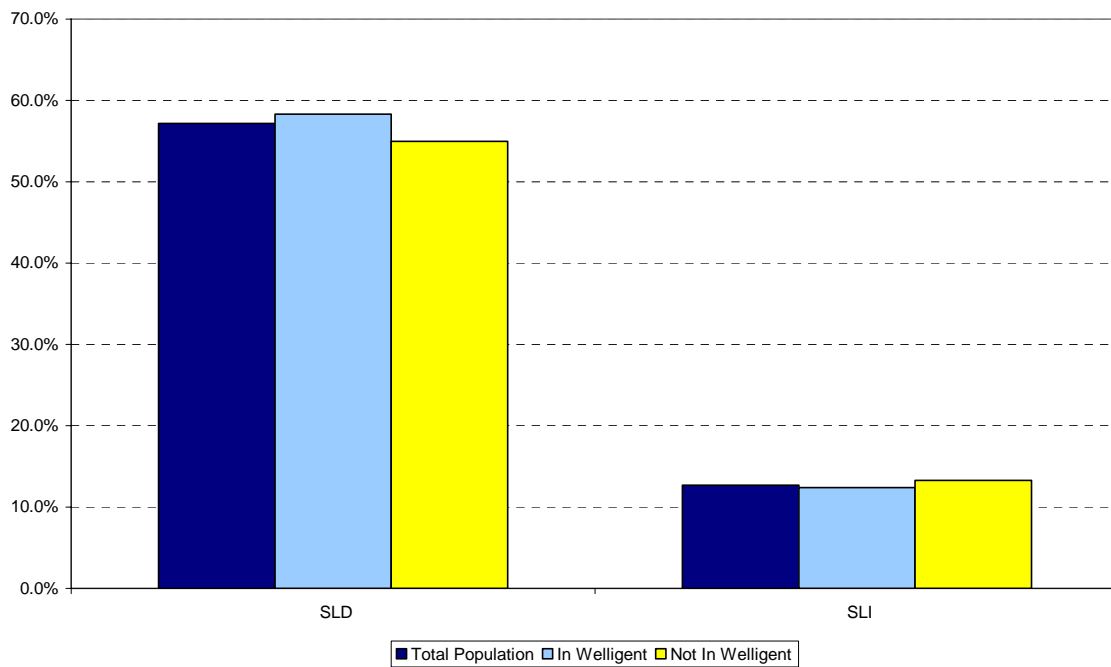


Figure 2:
Comparison of Welligent sample to the total population - high incidence disabilities

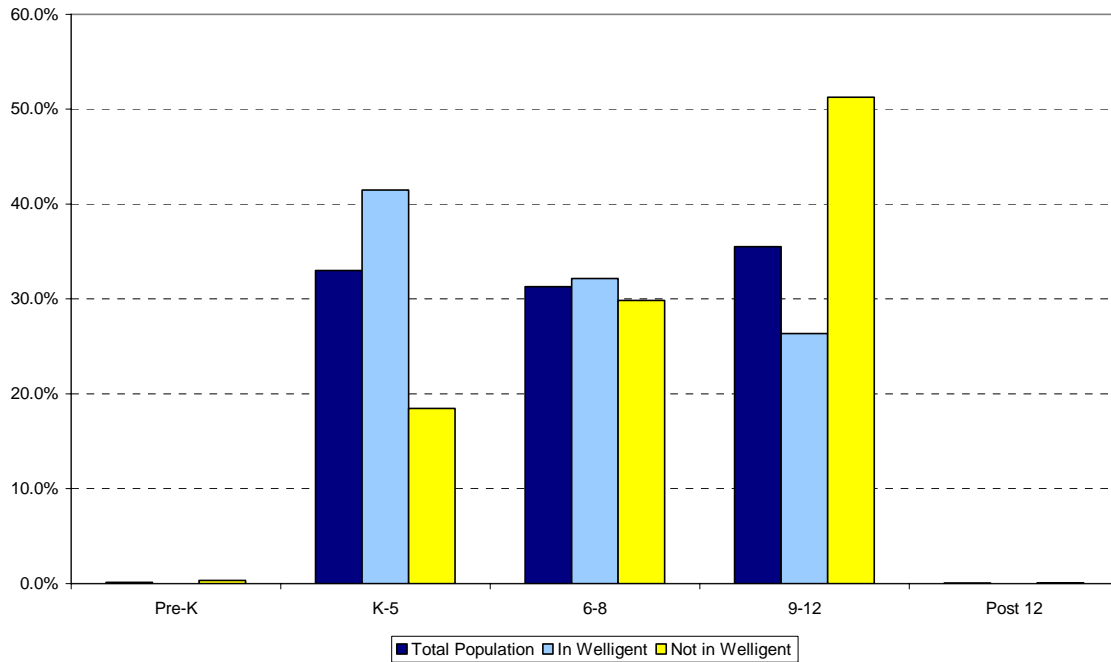


Grade Span Representation: Are SWDs in all grade spans adequately represented in Welligent? Table 3 presents the number and percent of SWD cases in the three data sets by grade span. None of the systems adequately captures the Pre-K population. In a district with nearly three quarters of a million students and close to 88,000 students with disabilities, having only 85 students on record for Pre-K is not credible. The SWD population is not adequately represented in Welligent by grade span. Welligent “overrepresents” students in the elementary grades by 8.5% and underrepresents students in the high school grades by 9%. Predictably, the cases yet to be entered in Welligent are fewer in the elementary grades than high school. Figure 3 shows these grade span discrepancies more clearly. Welligent is reasonably accurate for reporting middle school data. The overrepresentation at the elementary level and underrepresentation at the high school level means that any outcomes and benchmarks where results are sensitive to high school issues (for example, the existence of transition plans, high school completion, graduation rates, etc.) may be inaccurate estimates on either the low or high side. outcomes where elementary level issues can influence the results may overestimate progress.

Table 3. Number and Percent of Students in the Total Population, Welligent and in Cases Not in Welligent by Grade Span

	<u>Total</u>		<u>In</u>		<u>Difference</u>	<u>Not in</u>		<u>Difference</u>
	<u>Population</u>	<u>pct</u>	<u>Welligent</u>	<u>pct</u>	<u>from total</u>	<u>Welligent</u>	<u>pct</u>	<u>from total</u>
Pre-K	85	0.13%	2	0.00%	0.12%	83	0.34%	-0.21%
K-5	21,732	33.00%	17,249	41.50%	-8.50%	4,483	18.46%	14.54%
6-8	20,619	31.31%	13,365	32.15%	-0.84%	7,254	29.87%	1.44%
9-12	23,400	35.53%	10,950	26.34%	9.19%	12,450	51.26%	-15.73%
Post 12	20	0.03%	1	0.00%	0.03%	19	0.08%	-0.05%
Subtotal	65,856		41,567			24,289		
Miscode	2		0			2		
Uncoded	<u>21,677</u>	24.76%	<u>16,280</u>	28.14%	-3.38%	<u>5,397</u>	18.18%	6.58%
Total	87,535		57,847			29,688		

Figure 3:
Comparison of Welligent sample to the total population - by school level



Gender Representation. Boys are commonly overrepresented in SWD populations. The gender distribution in Welligent reflects this common finding and is not practically different from the gender distribution in the District population on in the SIS cases not yet entered into Welligent. outcomes influenced by gender can be accurately reported using Welligent data.

Table 4: Representation by gender

	SIS		Welligent		Not in Welligent	
	<u>Frequency</u>	<u>pct</u>	<u>Frequency</u>	<u>pct</u>	<u>Frequency</u>	<u>pct</u>
Boy	56,846	66.3%	38,084	65.8%	19,991	67.34%
Girl	28,850	33.7%	19,763	34.2%	9,691	32.64%
Total with codes	85,696		57,847		29,682	
Missing codes	1,839		29,688		6	
Total population	87,535		87,535		29,688	

Language Proficiency Distributions: LAUSD is home to many non-English speaking students from dozens of nations. The SWD population will reflect this diversity with one exception. Students learning English (Limited English Proficiency or English Learner students) are not to be placed into special education solely because of language proficiency. Approximately 44% of LAUSD students in grades Pre-K through transition are Limited English Proficient (LEP).

Table 5 displays the percentage of students by language proficiency, English Only (EO), Fluent English Proficient (FEP) and Limited English Proficiency (LEP) for the three categories: Total Population, Welligent, and the SIS Cases Not in Welligent. English Learners are the largest proportion of SWDs in all three data systems. Welligent has an overrepresentation of LEP students by 2.4% and an underrepresentation of EO students by about 2%. Because Welligent is underrepresented in the high school grades, by which time most EL students have become FEP, this discrepancy is predictable. A second explanation for the discrepancy in the percent of EO and LEP cases between Welligent and the population is that Welligent is more fully implemented in the elementary grades. Entering LAUSD students are increasingly LEP. Welligent reflects this fact.

Table 5. Number and Percent of SWD Students by Language Proficiency

Language Status	Population		Welligent		Not in Welligent	
	<u>Frequency</u>	<u>pct</u>	<u>Frequency*</u>	<u>pct</u>	<u>Frequency</u>	<u>pct</u>
EO	31,431	40.3%	20,915	38.2%	10,516	45.16%
FEP	5,355	6.9%	3,595	6.6%	1,760	7.56%
LEP	41,280	52.9%	30,272	55.3%	11,008	47.28%
Total with codes	78,066		54,782		23,284	
Missing codes	9,469		3,065		6,404	
Total population	87,535		57,847		29,688	

* based on variable in SIS for Welligent students only.

Primary Languages: The most predominant primary languages of the SWD population are presented in Table 6. More than half of the SWD population (53%) are Spanish speakers. Welligent overrepresents this group by 3.6%. Because Welligent has an “elementary bias”, and because entering students are increasingly Hispanic (though not

solely), when older students are entered into the system, the percentages will be closer to the total population. The difference in representation of other major language groups for Welligent is negligible (less than 1%).

Table 6 SWD by language code

	<u>Total</u>		<u>In</u>		<u>Difference</u>	<u>Not in</u>		<u>Difference</u>
	<u>Population</u>	<u>pct</u>	<u>Welligent</u>	<u>pct</u>	<u>from total</u>	<u>Welligent</u>	<u>pct</u>	<u>from total</u>
					<u>pct</u>			<u>pct</u>
Spanish-60	46,551	53.18%	32,881	56.84%	-3.66%	13,670	46.05%	7.13%
English-0	35,720	40.81%	21,099	36.47%	4.33%	14,621	49.25%	-8.44%
Armenian-15	478	0.55%	363	0.63%	-0.08%	115	0.39%	0.16%
Pilipino-62	353	0.40%	279	0.48%	-0.08%	74	0.25%	0.15%
Farsi-61	277	0.32%	193	0.33%	-0.02%	84	0.28%	0.03%
Korean-49	240	0.27%	171	0.30%	-0.02%	69	0.23%	0.04%
Spanish-1	199	0.23%	1	0.00%	0.23%	198	0.67%	-0.44%
Subtotal	83,818	95.75%	54,987	95.06%	0.70%	28,831	97.11%	-1.36%
Other	1,341	1.53%	973	1.68%	-0.15%	368	1.24%	0.29%
Uncoded	2,376	2.71%	1,887	3.26%	-0.55%	489	1.65%	1.07%
Total	87,535		57,847	100.00%		29,688	100.00%	

Geographic Location: Are students with disabilities in some local districts more likely to be entered into Welligent than students in other local districts? Is there an “implementation factor” linked to local district special education administration that affects the accuracy of data in Welligent? A review of the “Top 50” schools in terms of the percent of the special education population at the school not entered into Welligent reveals that a majority (though certainly not all) of schools failing to implement Welligent fully at the school site are charters (11 schools or about 10%) and small specialized schools (27 or over 50% have fewer than 600 students). Large comprehensive high schools make up about 20% of this group (10 schools). These “Top 50” in terms of the lowest percent of the SWD population at the site entered into Welligent do not account for large numbers of SWD students missing from the online system. The local districts with the highest percent of missing students from their candidates on the “Top 50” percentage of students missing from Welligent are districts 4, 1, and 2 in that order.

Table 7 lists the “Top 50 Schools” in terms of the absolute number of (rather than the percent of the SWD population) at the site not entered into Welligent. This “Top 50” presents an entirely different pattern. No elementary schools appear on this list. Schools with elementary grades on the list also include middle and high school levels. The overwhelming majority of schools with large numbers of SWDs missing from Welligent are large, comprehensive high schools (74%). The largest numbers of “missing students” from the “Top 50” are in districts 5, 7 and 2, in that order.

Table 7: Not-in-Welligent by largest absolute number missing

	Total	N not in	SWD enrl	PCT
	<u>Enrolment</u>	<u>Welligent</u>	<u>0405</u>	<u>Missing</u>
INF/PRESCHOOL PGM	.	2211	3543	62.0%
GARFIELD SH	***	417	568	73.0%
JEFFERSON SH	***	394	497	79.0%
ROOSEVELT SH	***	359	517	69.0%
BELL SH	***	356	527	68.0%
FREMONT SH	***	344	529	65.0%
LOS ANGELES SH	***	337	527	64.0%
POLYTECHNIC SH	***	328	505	65.0%
LOCKE SH	***	264	398	66.0%
FOSHAY LC	***	262	432	61.0%
CRENSHAW SH	***	247	405	61.0%
GARDENA SH	***	245	338	72.0%
WILSON SH	***	245	436	56.0%
GRANADA HILLS HS	.	238	276	86.0%
MANUAL ARTS SH	***	232	437	53.0%
NO HOLLYWOOD SH	***	229	384	60.0%
GRANT SH	***	221	326	68.0%
SAN PEDRO SH	***	215	389	55.0%
NARBONNE SH	***	213	385	55.0%
BIRMINGHAM SH	***	209	400	52.0%
BANNING SH	***	205	404	51.0%
WASHINGTON PREP SH	***	199	338	59.0%
JORDAN SH	***	195	310	63.0%
LINCOLN SH	***	194	338	57.0%
SOUTH GATE SH	***	192	448	43.0%
MONROE SH	***	190	568	33.0%
BERENDO MS	***	185	363	51.0%
MARSHALL SH	***	180	409	44.0%
DREW MS	***	174	289	60.0%
SAN FERNANDO SH	***	172	395	44.0%
HAMILTON SH-COMPLEX	***	169	322	52.0%
VERDUGO HILLS SH	***	158	212	75.0%
NIMITZ MS	***	156	401	39.0%
CARSON SH	***	154	295	52.0%
FRANKLIN SH	***	153	359	43.0%
GOMPERS MS	***	145	235	62.0%
CLAY MS	***	142	302	47.0%
UNIVERSITY SH	***	141	267	53.0%
BURBANK MS	***	139	245	57.0%
EAGLE ROCK HS	***	138	286	48.0%
MARKHAM MS	***	134	178	75.0%
BANNEKER SP ED CTR	403	134	420	32.0%
SUN VALLEY MS	***	131	276	47.0%
STEVENSON MS	***	125	255	49.0%
ELIZABETH LC	***	120	249	48.0%
FAIRFAX SH	***	120	313	38.0%
RESEDA SH	***	118	300	39.0%
WESTCHESTER SH	***	114	202	56.0%
TAFT SH	***	114	266	43.0%
PALMS MS	***	113	183	62.0%
Total		12,170		

Table 8 summarizes the percent of missing Welligent cases by local district. The local districts with the largest absolute number of missing cases, not tied to the “Top 50” list, are Districts 7, 3, and 4. When absolute numbers of missing students are considered, the percentage of missing cases ranges from 23-39%. Most local districts have at least a quarter and often a third of their SWDs missing from Welligent. To the extent that local districts have systematic differences in ethnicity, socio-economic status, academic performance, and classroom space for SWD programs, these missing data can cause invalid findings when Welligent is the sole data source. The geographic analysis does provide guidelines where data entry needs to occur and where Welligent implementation needs closer supervision.

Table 8: Missing by local district

Local District	N not in <u>Welligent</u>	SWD enrl <u>0405</u>	PCT <u>Missing</u>
	2,217	3,545	62.5%
1	3,252	13,886	23.4%
2	3,027	11,221	27.0%
3	3,703	10,812	34.2%
4	2,637	9,518	27.7%
5	3,283	9,822	33.4%
6	1,637	6,295	26.0%
7	2,946	7,531	39.1%
8	3,016	9,407	32.1%
N		3,966	0.0%
Total	25,718	86,003	29.9%

Summary and Conclusions

Welligent is an accurate data set for reporting many of the outcomes and benchmarks required by the Consent Decrees. However, those outcomes and benchmarks related to ethnicity (where data have not yet been entered), high school outcomes, and issues of representation in ED must be reported and interpreted with caution. The necessary next step is to work with local districts to achieve complete implementation of Welligent, focusing on large, comprehensive high schools, charters and small, specialized schools.

Appendices

Appendix 1. Percent of Students in Welligent by Grade Compared to the Population and SIS Not in Welligent

Appendix A1

Grade	<u>Total</u>		<u>In</u>		<u>Not in</u>	
	<u>Population</u>	<u>pct</u>	<u>Welligent</u>	<u>pct</u>	<u>Welligent</u>	<u>pct</u>
Pre-K	1	0.0%	2	0.0%	1	0.0%
Pre-K	84	0.1%	0	0.0%	82	0.3%
0	2,562	3.9%	1,723	4.1%	839	3.5%
1	2,778	4.2%	2,206	5.3%	572	2.4%
2	3,435	5.2%	2,757	6.6%	678	2.8%
3	3,860	5.9%	3,173	7.6%	<u>687</u>	2.8%
4	4,467	6.8%	3,655	8.8%	812	3.3%
5	4,630	7.0%	3,735	9.0%	895	3.7%
6	7,041	10.7%	4,850	11.7%	2,191	9.0%
7	6,229	9.5%	3,962	9.5%	2,267	9.3%
8	7,349	11.2%	4,553	11.0%	2,796	11.5%
9	8,662	13.2%	3,978	9.6%	4,684	19.3%
10	5,954	9.0%	2,679	6.4%	3,275	13.5%
11	4,417	6.7%	2,017	4.9%	2,400	9.9%
12	4,367	6.6%	2,276	5.5%	2,091	8.6%
13	13	0.0%	1	0.0%	12	0.0%
16	6	0.0%	0	0.0%	6	0.0%
17	1	0.0%	0	0.0%	1	0.0%
miscode	2	0.0%	0	0.0%	2	0.0%
Total	<u>65,858</u>		<u>41,567</u>		<u>24,291</u>	
Uncoded	<u>21,677</u>		<u>16,280</u>		<u>5,397</u>	
Total	87,535		57,847		29,688	

Appendix 2.

Figure 1. Percent of SWD students in the Top 50 Schools with Missing Welligent Data by Local District

