

Experimental Results

Datasets

- *Real Collection*

Conference	#RDF Triples	#Transactions
EKAU'16	11,278	1,866
ISWC'12	12,211	2,694
ISWC'10	12,809	2,436
ESWC'12	13,147	2,314
ESWC'15	13,826	2,533
WWW'11	16,689	3,137
ISWC'13	21,128	4,679
ESWC'14	21,509	3,851
ESWC'17	23,053	4,021
LREC'08	38,248	7,304
WWW'12	39,650	7,076

Datasets

- *Evolution Collection*

Conference	#RDF Triples	#Transactions
EKAU'16	11,278	1,866
ESWC'12	13,147	2,314
WWW'11	16,689	3,137
ISWC'13	21,128	4,679
WWW'12	39,650	7,076

- *Modifications:*
 - *Randomly deleting class assertions*
 - *Randomly deleting property assertions*
 - *Randomly changing the values of the properties*
- *45 Datasets derived (3 generations to avoid bias)*

Datasets

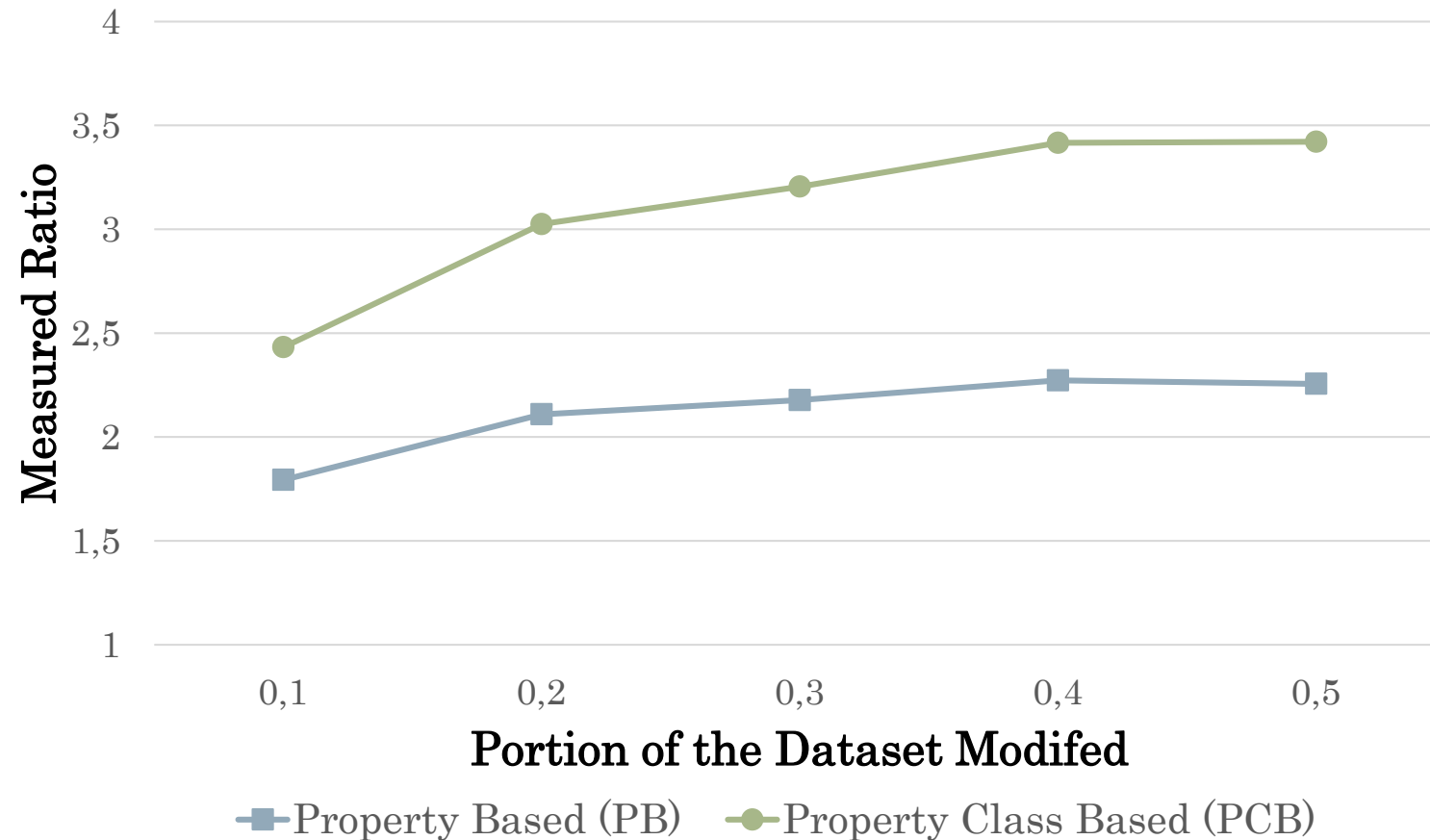
- *Inclusion Collection*

Conference	#RDF Triples	#Transactions
EKAW'16	11,278	1,866
ISWC'12	12,211	2,694
WWW'12	39,650	7,076

- *Integrated with all the rest of the datasets in Real Collection*

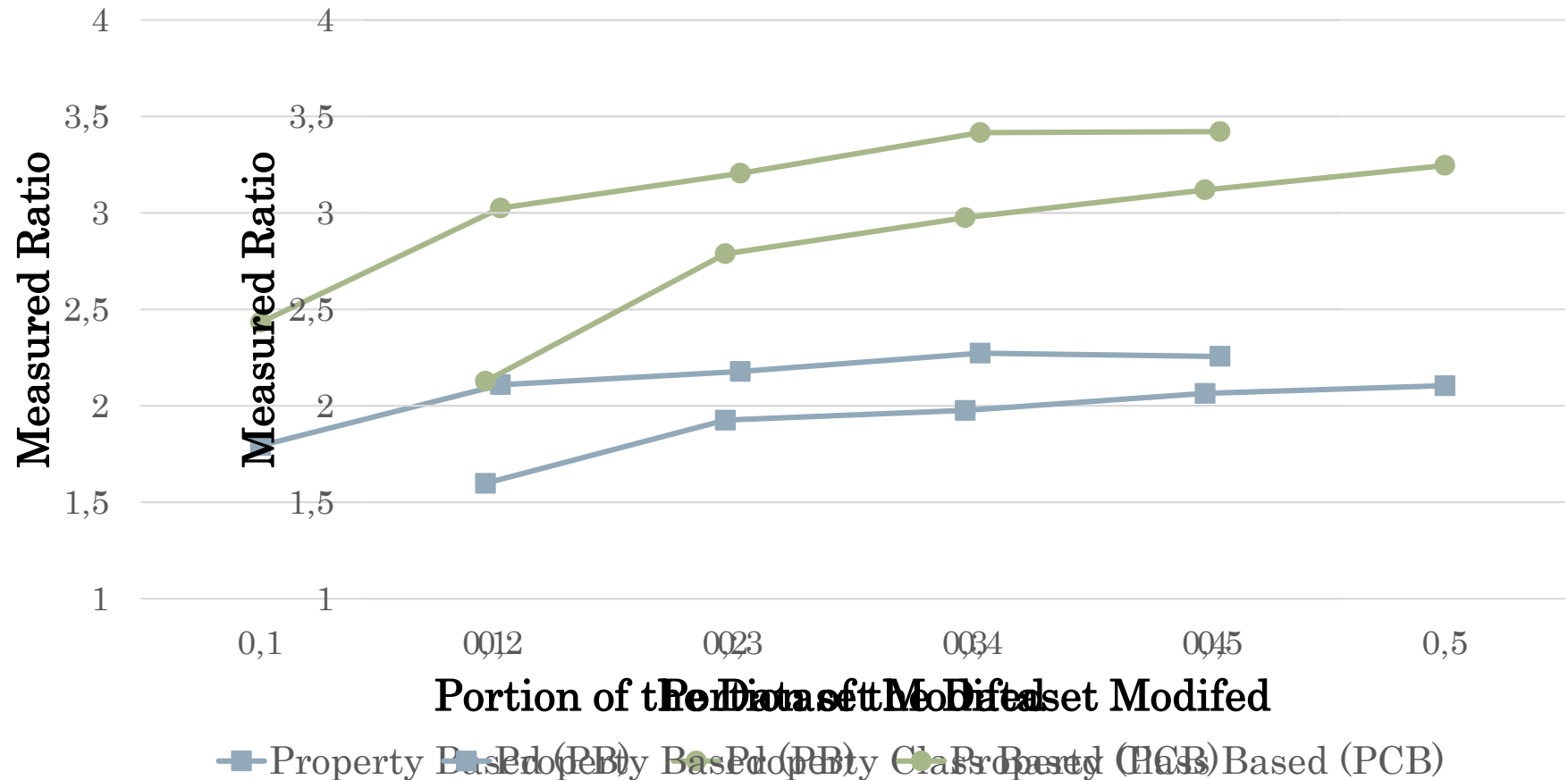
Capturing Differences

Averaged Difference Ratios



Capturing Differences

Averaged Differences RISWC'13



Measuring Real Datasets

Property Class Based (PCB)	EKAW'16	ESWC'17	ESWC'12	ESWC'14	ESWC'15	ISWC'10	ISWC'12	ISWC'13	LREC'08	WWW'11	WWW'12
EKAW'16	0.059	1.555	6.845	7.977	7.285	5.986	8.918	6.493	10.843	6.301	6.177
ESWC'17	5.107	0.052	8.835	8.314	8.002	8.950	7.645	6.508	10.844	10.089	8.233
ESWC'12	5.916	6.772	0.059	2.299	2.040	4.641	4.195	3.789	4.163	6.298	2.035
ESWC'14	5.792	6.638	2.906	0.061	1.524	4.291	4.183	3.695	4.180	4.954	2.990
ESWC'15	5.675	6.423	2.967	2.236	0.062	4.487	4.237	3.816	4.179	5.257	3.051
ISWC'10	5.431	6.158	1.105	2.385	2.201	0.068	4.077	3.620	4.163	1.218	1.822
ISWC'12	2.236	2.818	0.986	1.295	1.606	0.977	0.073	1.110	1.025	0.998	1.045
ISWC'13	2.369	2.934	1.214	1.484	1.857	1.145	1.038	0.080	1.014	1.060	1.184
LREC'08	2.626	2.249	2.683	2.401	2.503	2.650	3.388	2.950	0.052	2.323	2.269
WWW'11	3.517	4.387	1.846	3.633	2.641	1.912	1.874	2.122	1.067	0.057	1.959
WWW'12	1.635	1.924	0.995	2.289	1.953	1.599	1.867	1.945	1.054	2.461	0.065

Inclusion Tests

Property Class Based (PCB) [ISWC'12 <= *]			
EKAW'16	2.236	EKAW'16+Ref	1.405
ESWC'17	2.818	ESWC'17+Ref	1.972
ESWC'12	0.986	ESWC'12+Ref	0.921
ESWC'14	1.295	ESWC'14+Ref	1.136
ESWC'15	1.606	ESWC'15+Ref	1.260
ISWC'10	0.977	ISWC'10+Ref	0.914
ISWC'13	1.110	ISWC'13+Ref	1.061
LREC'08	1.025	LREC'08+Ref	0.966
WWW'11	0.998	WWW'11+Ref	0.931
WWW'12	1.045	WWW'12+Ref	0.971



Property Class Based (PCB) [* <= ISWC'12]			
EKAW'16	8.918	EKAW'16+Ref	1.038
ESWC'17	7.645	ESWC'17+Ref	1.038
ESWC'12	4.195	ESWC'12+Ref	1.007
ESWC'14	4.183	ESWC'14+Ref	1.038
ESWC'15	4.237	ESWC'15+Ref	1.038
ISWC'10	4.077	ISWC'10+Ref	1.002
ISWC'13	1.038	ISWC'13+Ref	1.038
LREC'08	3.388	LREC'08+Ref	1.002
WWW'11	1.874	WWW'11+Ref	1.000
WWW'12	1.867	WWW'12+Ref	1.005

