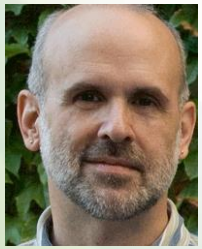
Where the Wild Things Are

Circulation Data Revealed

2016 Wisconsin Association of Public Libraries (WAPL) Annual Conference

Wisconsin Division for Libraries and Technology



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Topics for Today

How this happened

Available data

Summaries by locale, resident population, and collection size

Putting it all together

The big question(s)

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How This Happened

Talking about data matters.

State Data Coordinators (SDC) discuss data. A lot.

Data we have been collecting all along can provide new information.

What we thought we might find.

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Talking About Data Matters

Data doesn’t happen in isolation, so the work we do with it also should not.

Data requires interpretation, so discussion matters.

Data is inherently about change, so we should consider changing how we think about data.

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SDCs Discuss Data

What do State Data Coordinators discuss?

Data that isn't collected but should be

Data that is collected but shouldn't be

Data that represents different things now than it did originally

Data that contains more information than we use

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Circulation Defined

2017

Wisconsin Public Library Annual Report for 2016

A circulation transaction is the act of loaning materials at a library or bookmobile in all formats for use outside the library. This activity includes checking out materials to users, either manually or through a self-checkout system, and renewing materials, each of which is reported as a circulation transaction.

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Circulation Defined

1988

Action Plan for the Federal-State Cooperative System for Public Library Data

Total Circulation Transactions. Transactions that involve lending an item from the library's collection for use generally (although not always) outside the library. This activity includes charging, either manually or electronically, and also renewals, each of which is reported as a circulation transaction.

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What We Might Find

Library users can renew online.
Are staff renewals decreasing?

Libraries offer more types of services.
Do checkouts represent less of the services used?

Libraries serve very different areas of Wisconsin
Does the type of area determine trends in use?

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Available Data

Participants

ILS Circulation Data

Timelines

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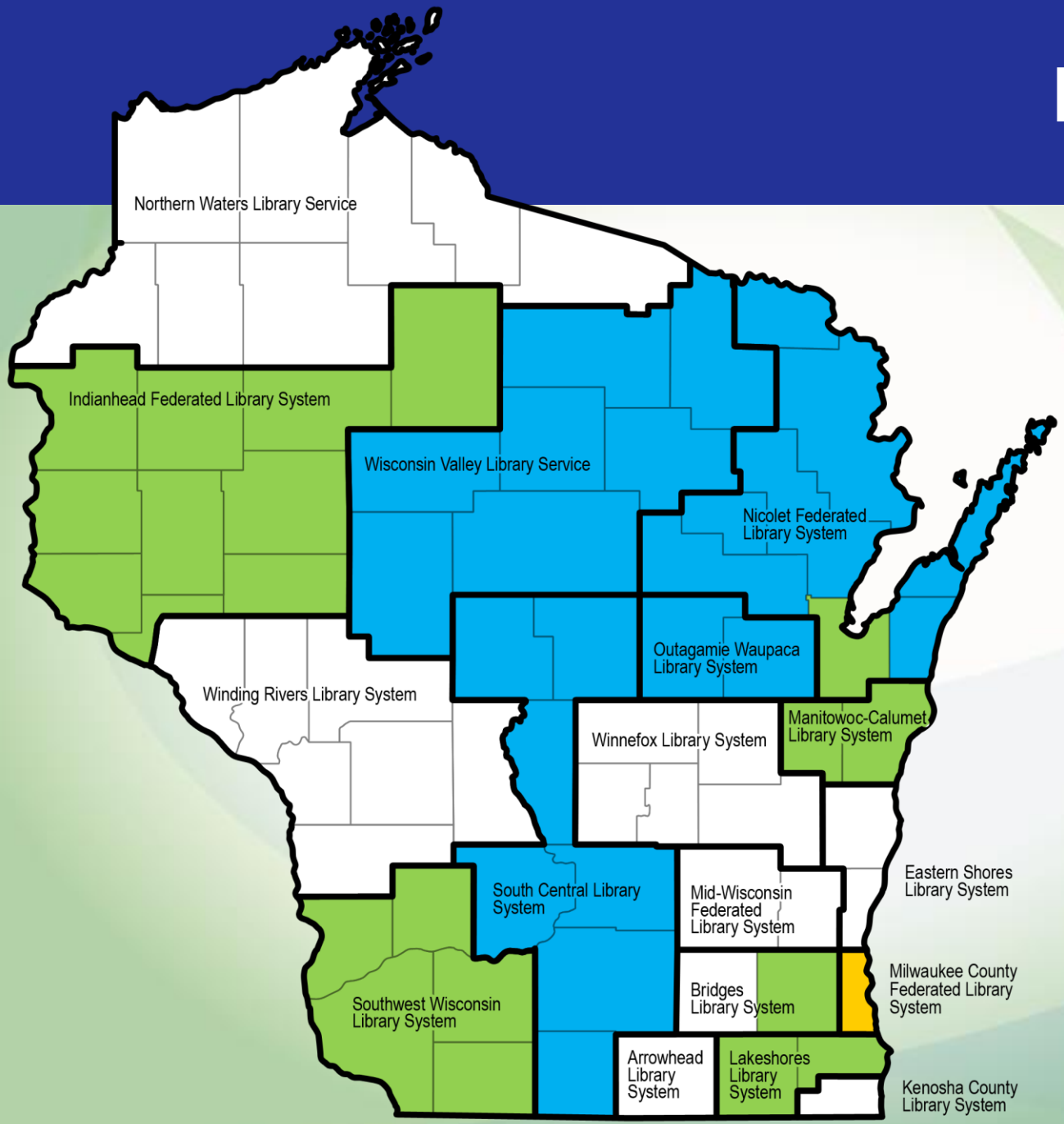
Participants



- Ten library systems
- Brown County Library

- User renewal
- Checkout and renewal
- Checkout, user renewal, and staff renewal

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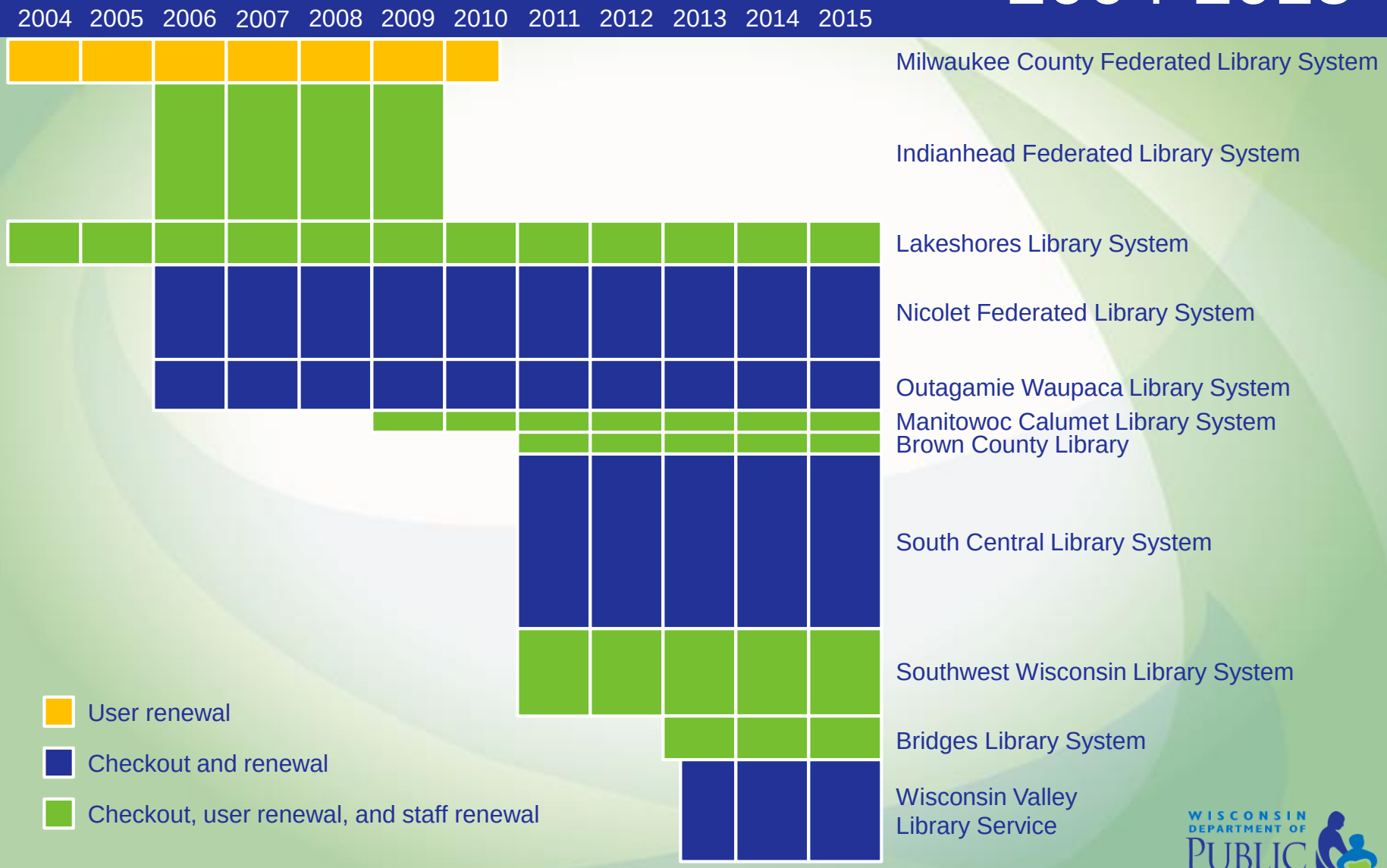
ILS Circulation Data 2004-2015



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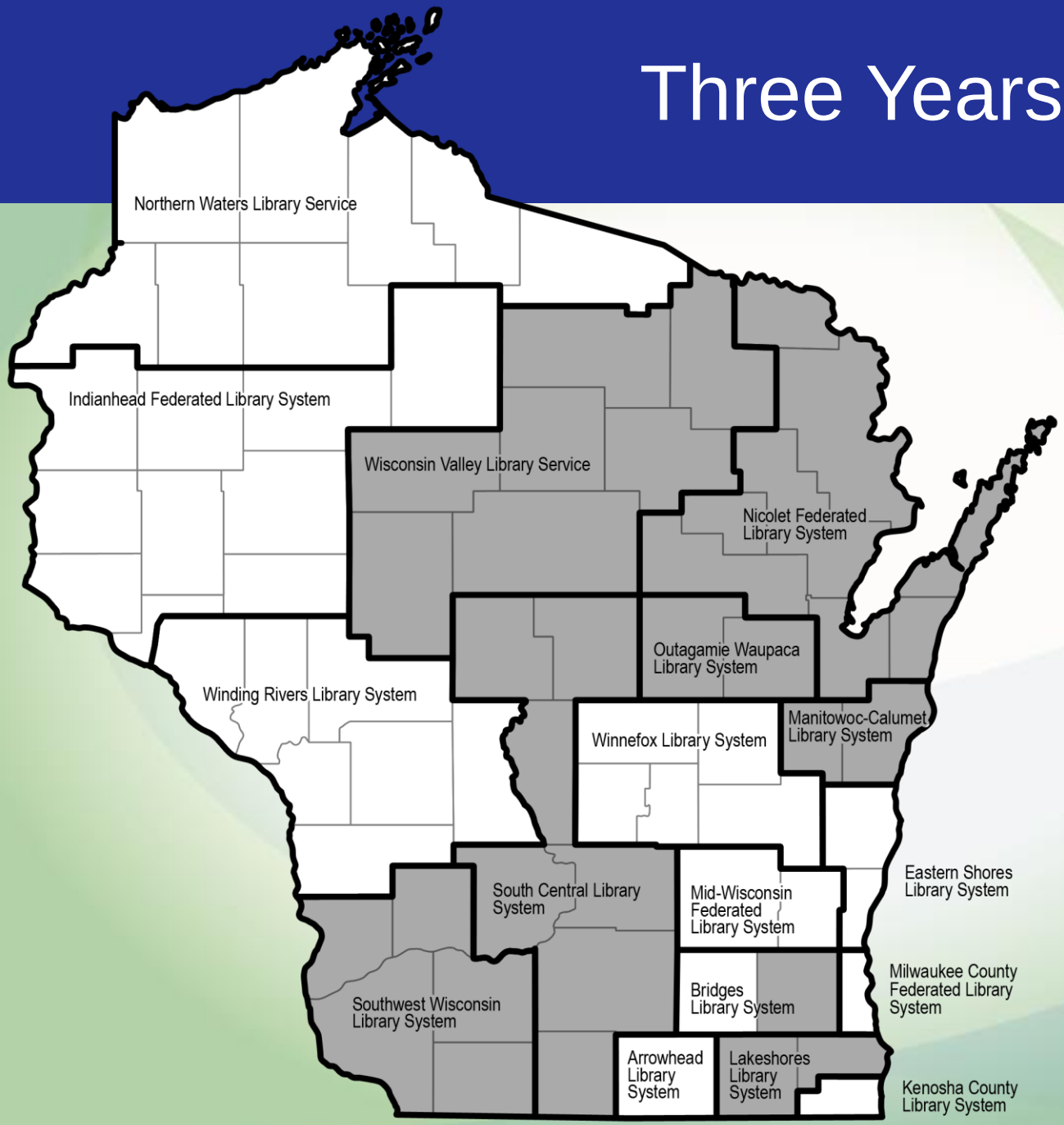
Three Years 2013-2015



- WVLS
- NFLS
- SCLS
- OWLS
- Brown County
- MCLS
- SWLS
- BLS (WCFLS)
- LLS

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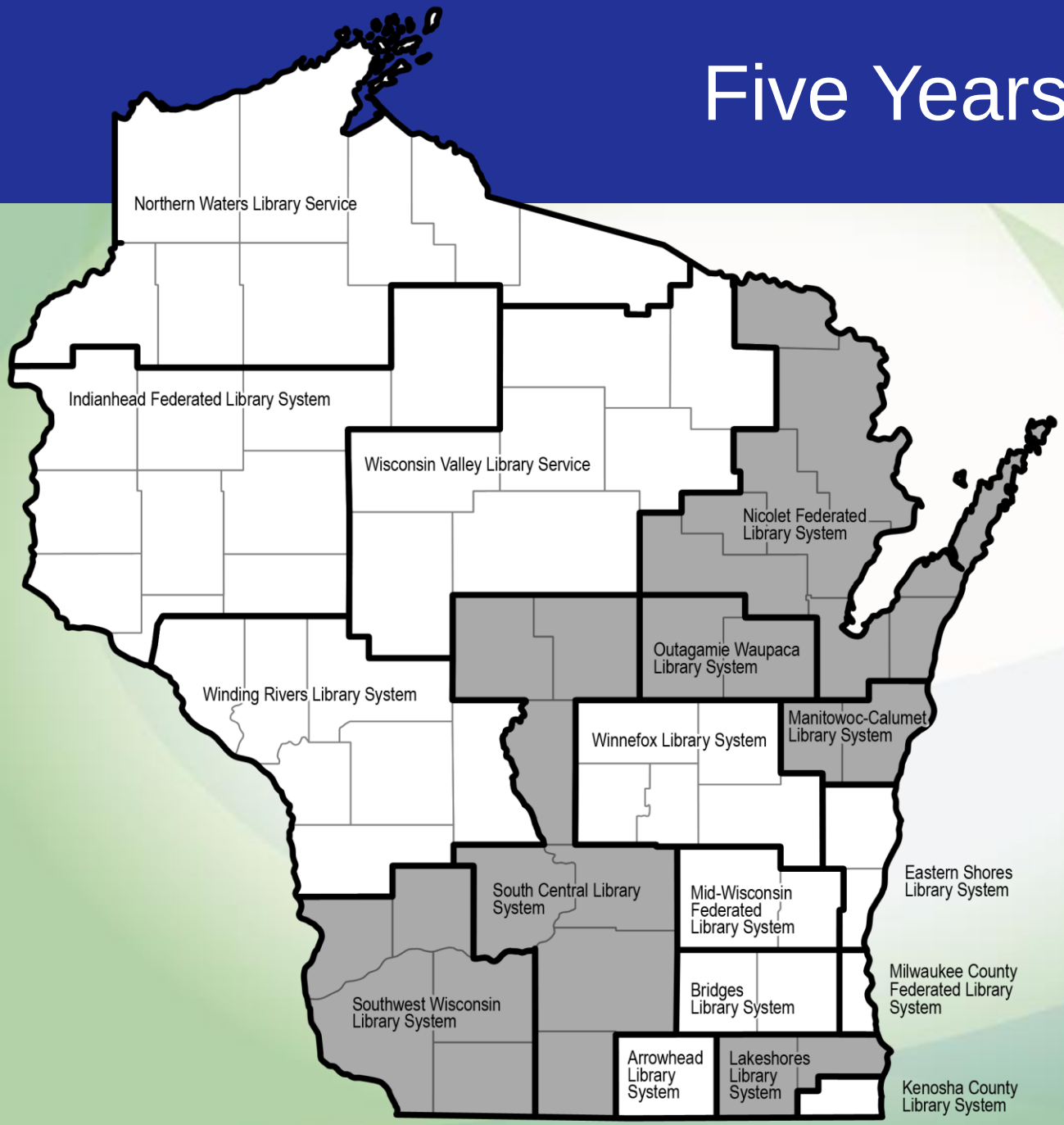
Five Years 2011-2015



- NFLS
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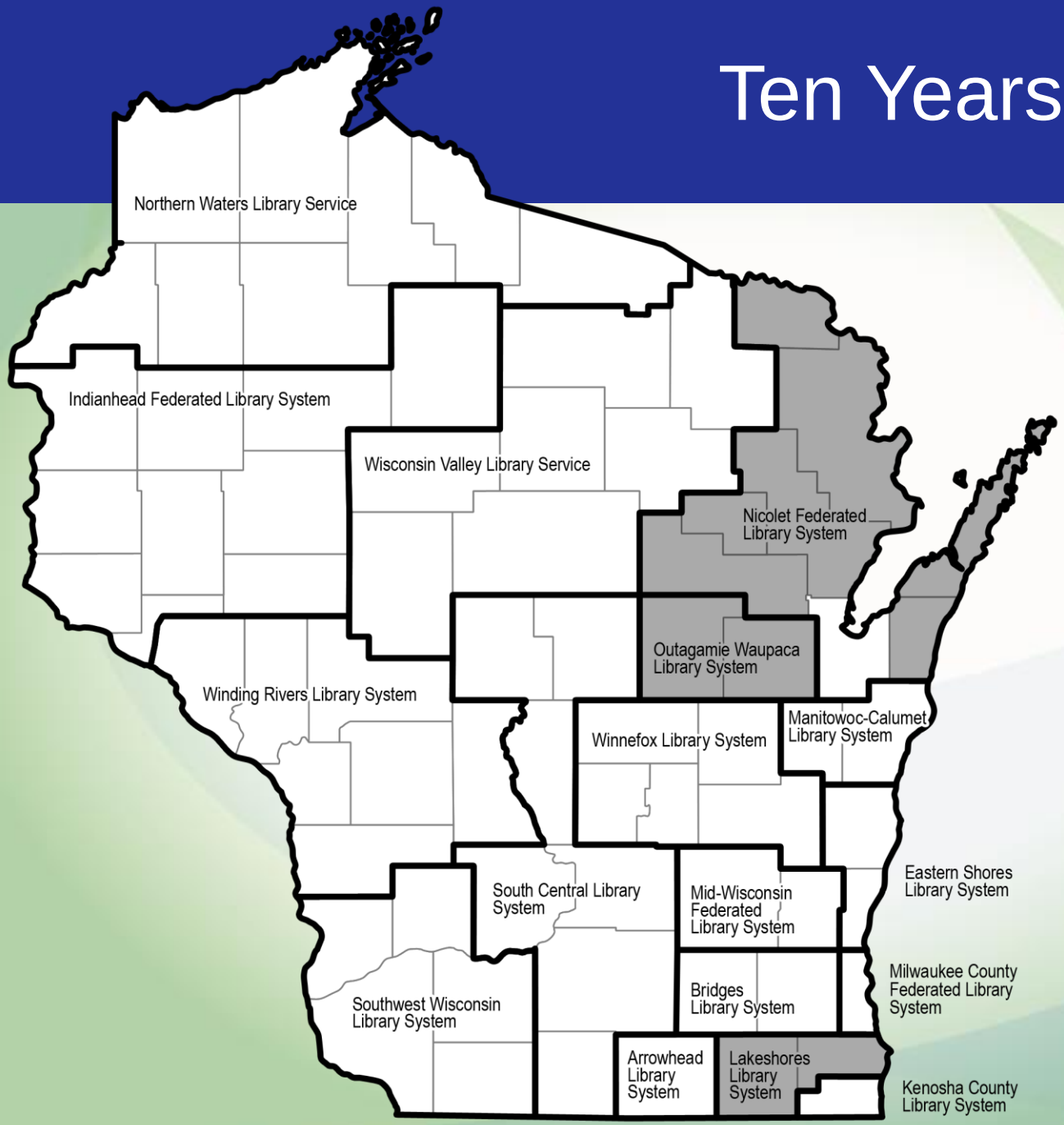
Ten Years 2006-2015



- NFLS
- OWLS
- LLS

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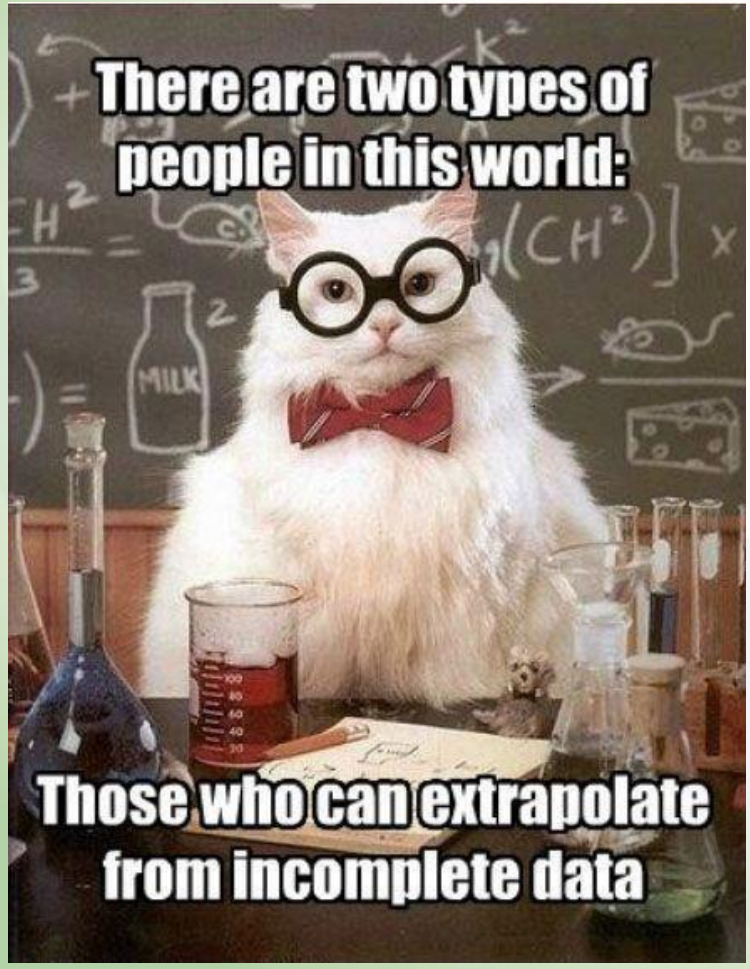
Results



Wild Thing 1

We are drawing general conclusions from an experiment with a very limited amount of data.

- The part of circulation that is renewals
- Checkouts per 100 visits

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Library Locales

U.S. Census Bureau locale codes are based on the proximity of an address to an urbanized area, which provides a means of better comparing library data in terms of the region a library serves:

*(16)	City	Large, Midsize, and Small
(46)	Suburb	Large, Midsize, and Small
(98)	Town	Fringe, Distant, and Remote
(221)	Rural	Fringe, Distant, and Remote

See nces.ed.gov/ccd/rural_locales.asp

* Number of Wisconsin public libraries with the locale type

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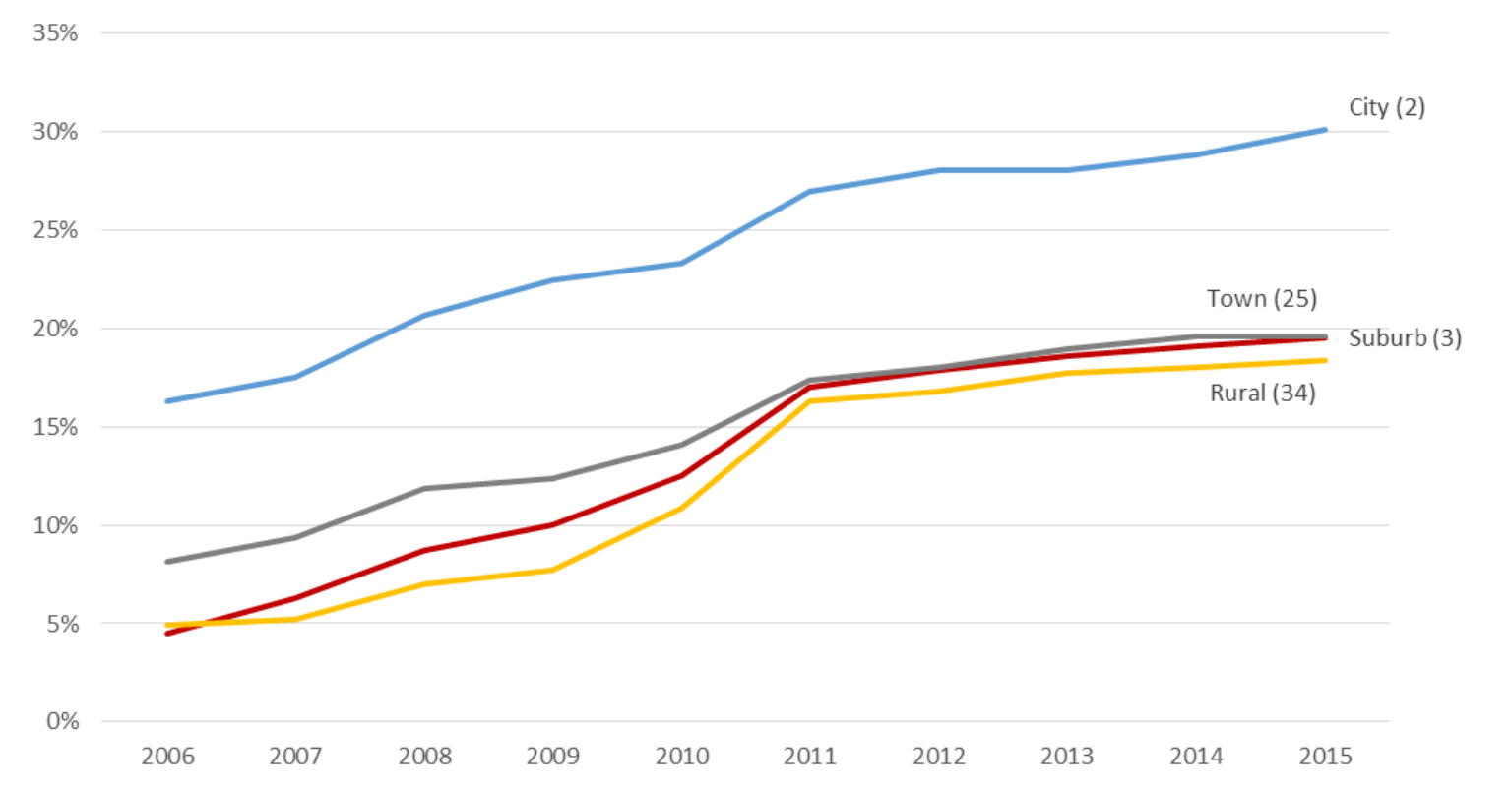
Renewal % of Circulation by Locale



Locale	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
City (2)	16.3%	17.5%	20.7%	22.4%	23.3%	26.9%	28.0%	28.0%	28.8%	30.1%
Suburb (3)	4.5%	6.3%	8.7%	10.0%	12.5%	17.0%	17.8%	18.6%	19.1%	19.5%
Town (25)	8.1%	9.4%	11.8%	12.4%	14.1%	17.4%	18.0%	19.0%	19.6%	19.6%
Rural (34)	4.9%	5.2%	7.0%	7.7%	10.9%	16.3%	16.8%	17.7%	18.0%	18.4%

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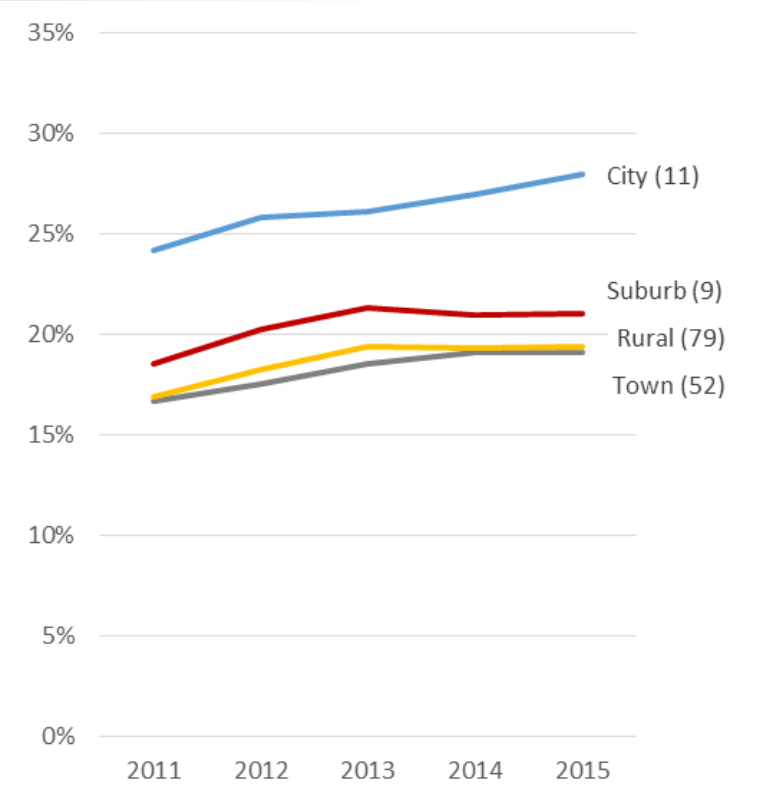
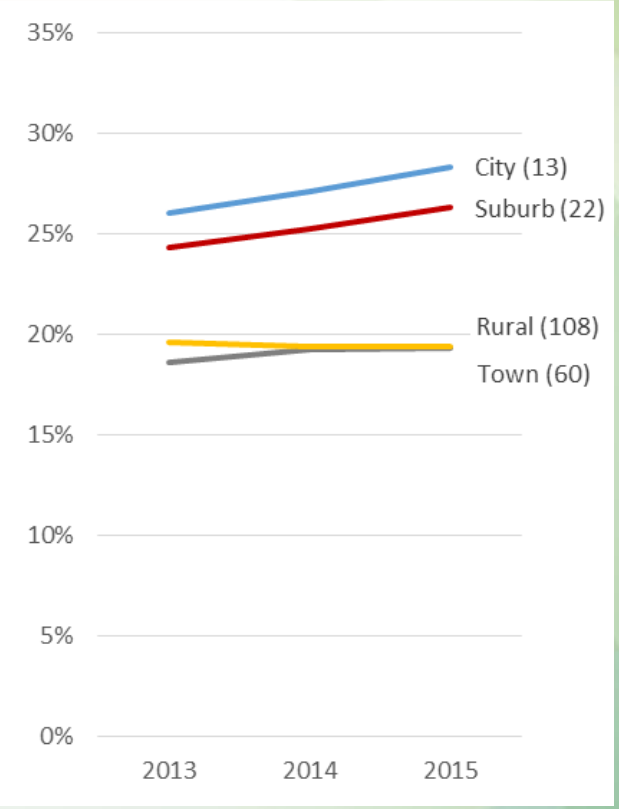
Renewal % of Circulation by Locale





Locale	2011	2012	2013	2014	2015
City (11)	24.2%	25.8%	26.1%	27.0%	27.9%
Suburb (9)	18.5%	20.3%	21.3%	21.0%	21.0%
Town (52)	16.7%	17.6%	18.5%	19.1%	19.1%
Rural (79)	16.9%	18.3%	19.4%	19.3%	19.4%

Locale	2013	2014	2015
City (13)	26.1%	27.1%	28.3%
Suburb (22)	24.4%	25.3%	26.3%
Town (60)	18.6%	19.3%	19.3%
Rural (108)	19.6%	19.4%	19.4%

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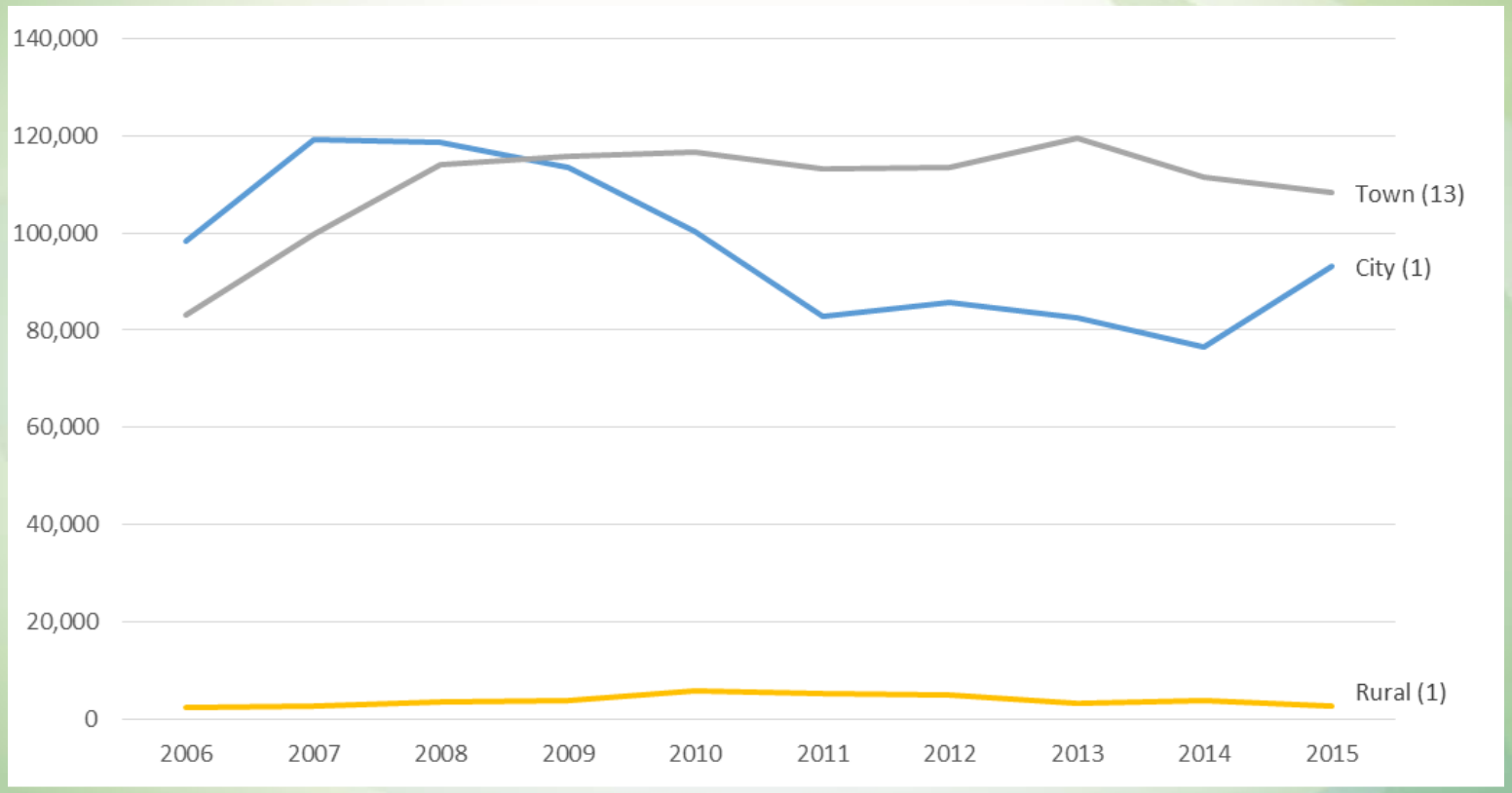
Staff Renewal by Locale



Locale	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
City (1)	98,175	119,172	118,541	113,563	100,227	82,806	85,841	82,619	76,689	93,055
Suburb (0)										
Town (13)	83,213	99,753	114,023	115,797	116,689	113,153	113,476	119,478	111,374	108,250
Rural (1)	2,502	2,837	3,732	3,886	5,830	5,439	4,997	3,446	3,902	2,888

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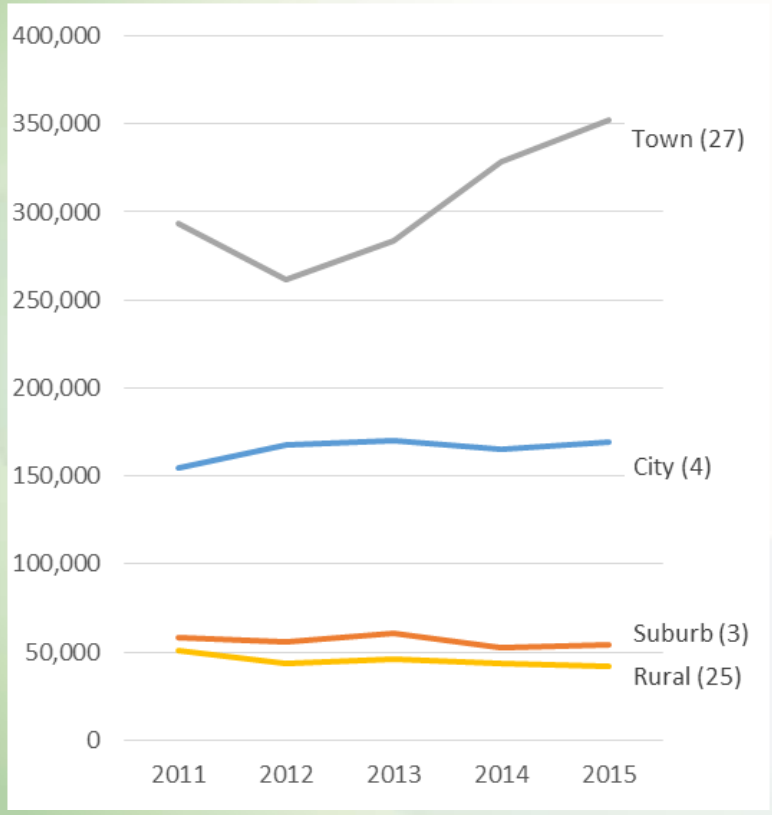
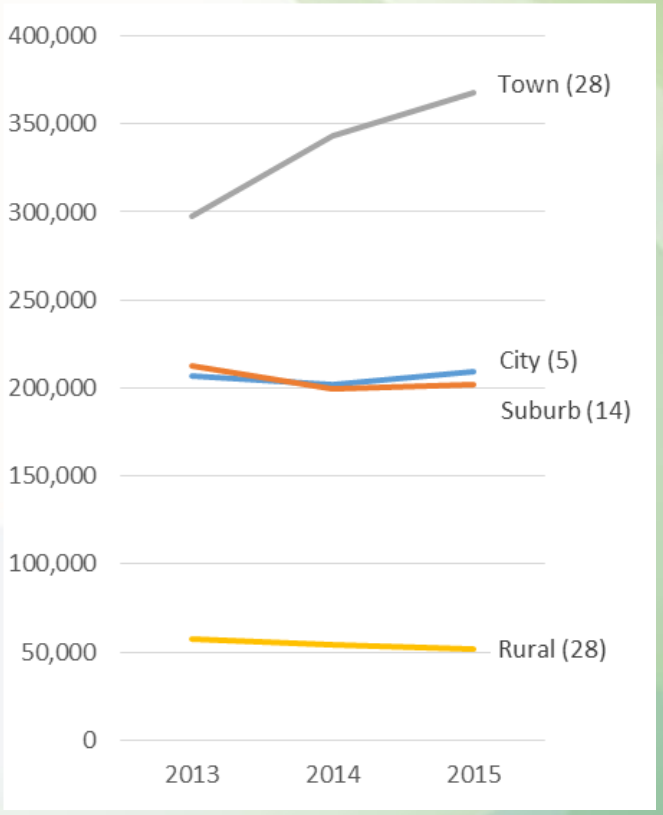
Staff Renewal by Locale





Locale	2011	2012	2013	2014	2015
City (4)	154,811	167,379	170,417	165,562	169,543
Suburb (3)	58,470	55,596	60,828	52,666	54,432
Town (27)	293,233	261,295	283,381	328,641	352,055
Rural (25)	50,725	43,654	46,065	43,686	41,940

Locale	2013	2014	2015
City (5)	207,106	202,000	209,228
Suburb (14)	212,198	199,814	201,569
Town (28)	297,549	343,523	367,772
Rural (28)	57,042	53,703	51,939

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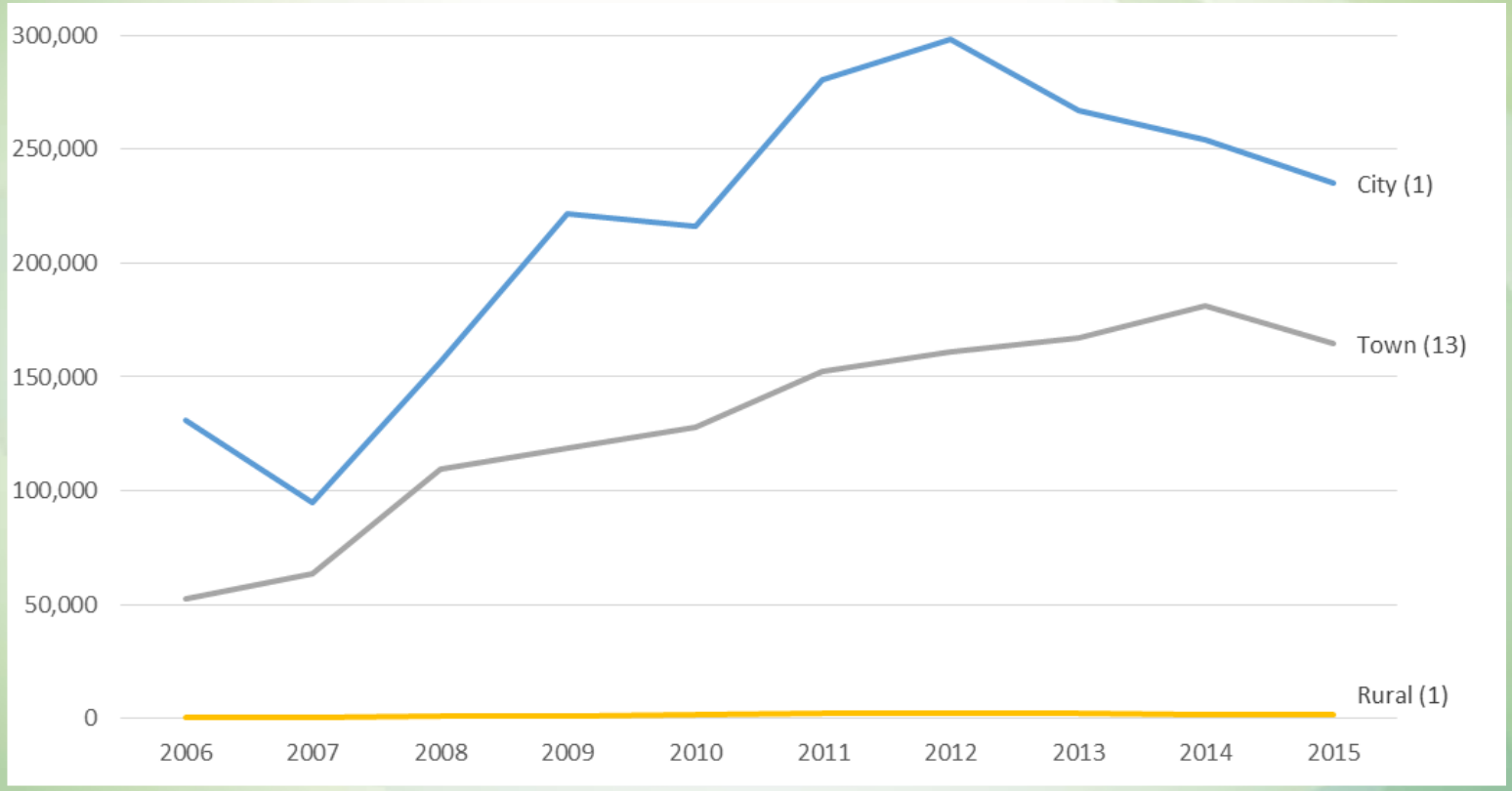
User Renewal by Locale



Locale	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
City (1)	130,786	94,771	156,857	221,655	216,147	280,700	298,182	266,836	254,108	234,832
Suburb (0)										
Town (13)	52,324	63,814	109,306	118,695	127,983	152,487	161,133	166,999	181,255	164,445
Rural (1)	498	668	1,050	1,285	1,567	2,117	2,466	2,348	1,559	1,658

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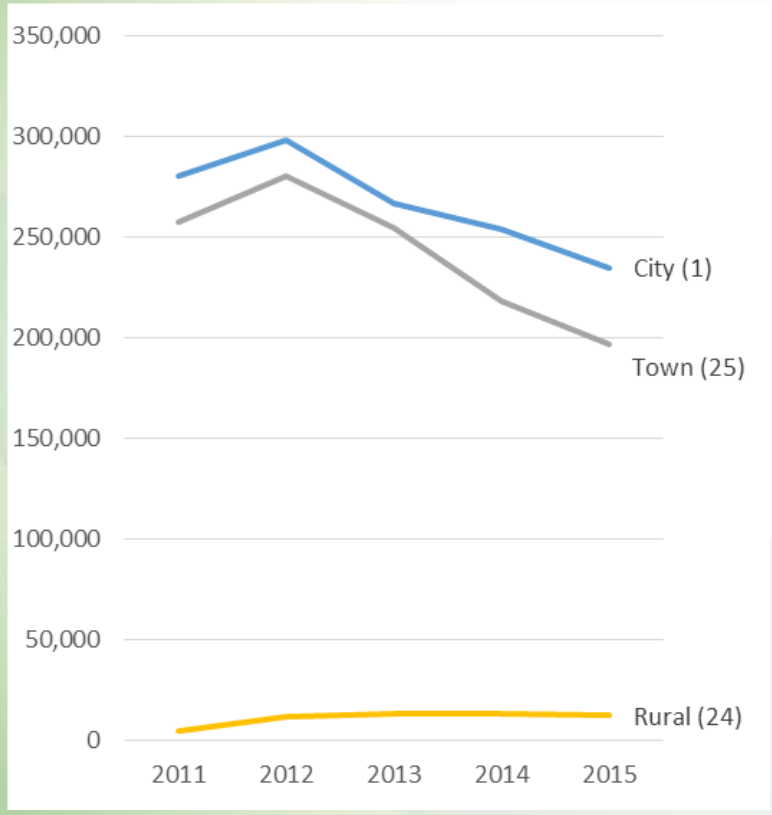
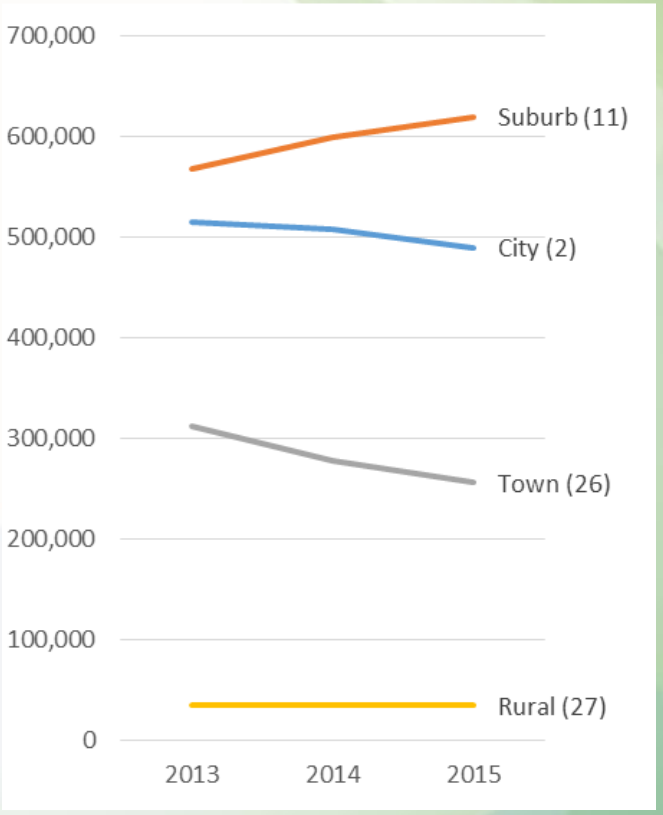
User Renewal by Locale





Locale	2011	2012	2013	2014	2015
City (1)	280,700	298,182	266,836	254,108	234,832
Suburb (0)					
Town (25)	257,466	280,023	254,468	217,931	196,471
Rural (24)	4,266	11,376	13,298	13,258	12,359

Locale	2013	2014	2015
City (2)	515,029	507,740	489,484
Suburb (11)	568,461	599,455	619,795
Town (26)	312,166	278,245	255,647
Rural (27)	35,019	34,493	34,463

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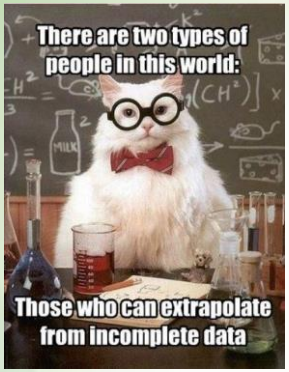
Staff and User Renewals



Wild Thing 2

Renewals by locale

- Overall, the percentage of staff renewals is not decreasing. In fact, it's increasing at libraries in town locales.
- User renewals appear to have peaked.

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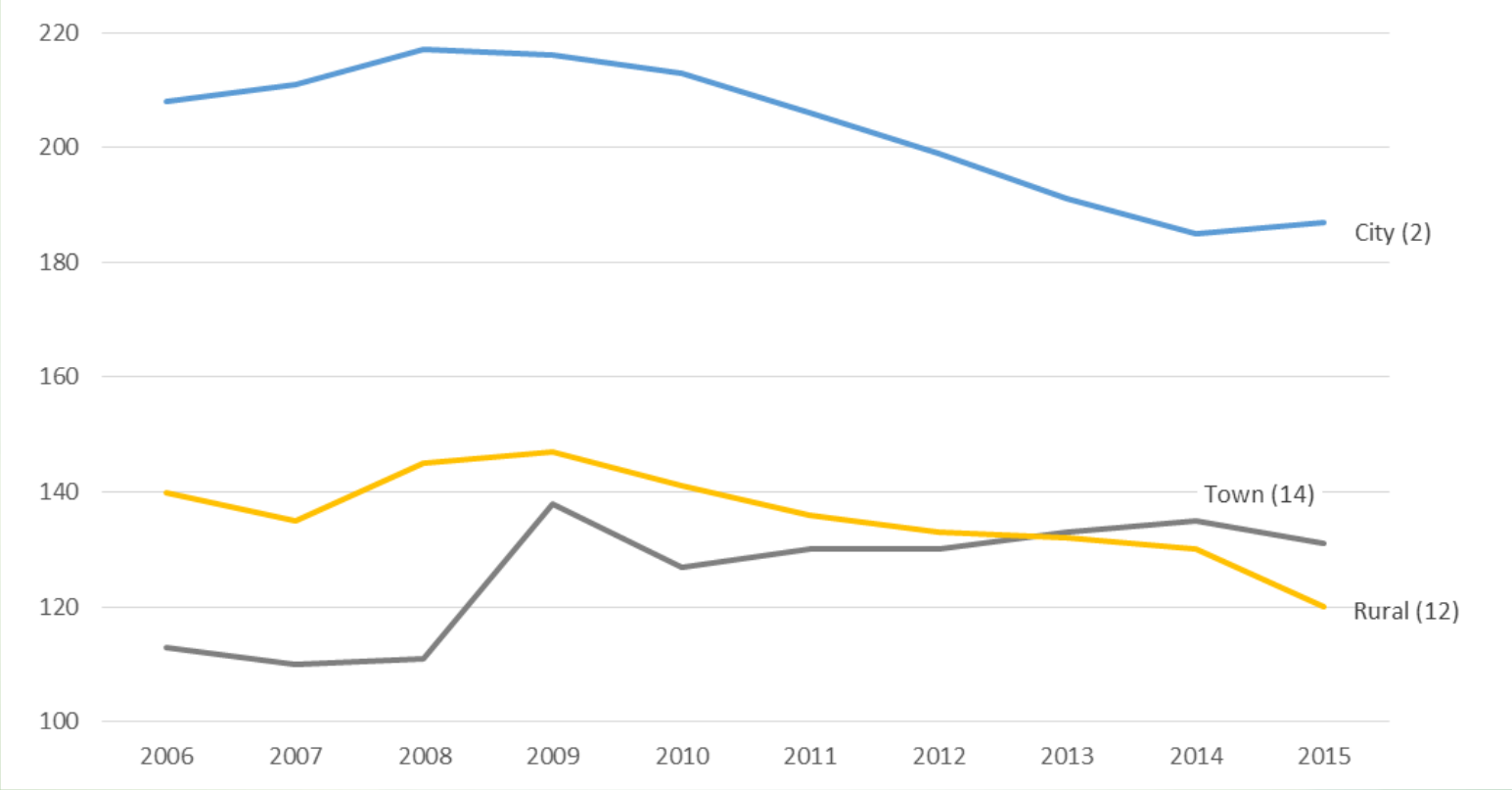
Checkouts per 100 Visits by Locale



Locale	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
City (2)	208	211	217	216	213	206	199	191	185	187
Suburb (0)										
Town (14)	113	110	111	138	127	130	130	133	135	131
Rural (12)	140	135	145	147	141	136	133	132	130	120

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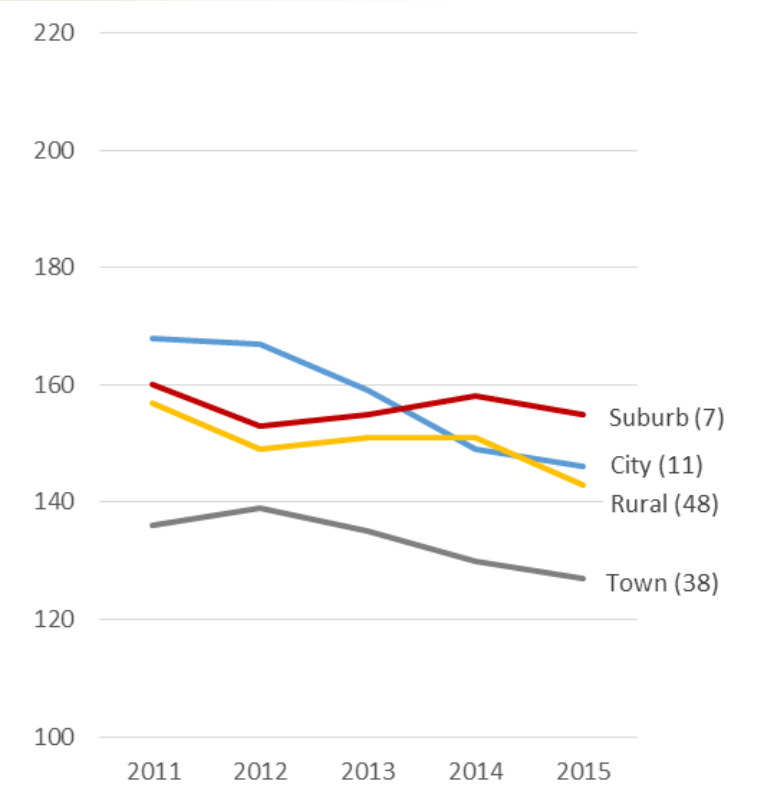
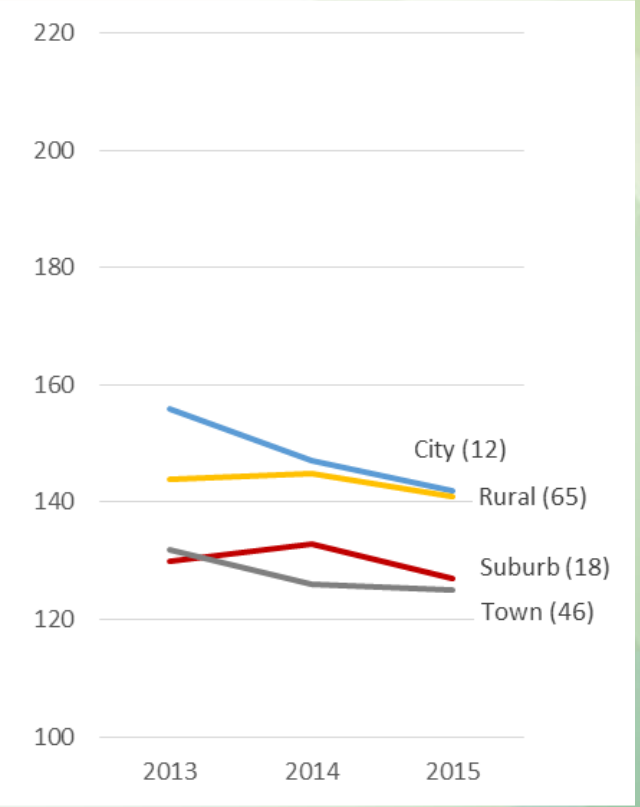
Checkouts per 100 Visits by Locale





Locale	2011	2012	2013	2014	2015
City (11)	168	167	159	149	146
Suburb (7)	160	153	155	158	155
Town (38)	136	139	135	130	127
Rural (48)	157	149	151	151	143

Locale	2013	2014	2015
City (12)	156	147	142
Suburb (18)	130	133	127
Town (46)	132	126	125
Rural (65)	144	145	141

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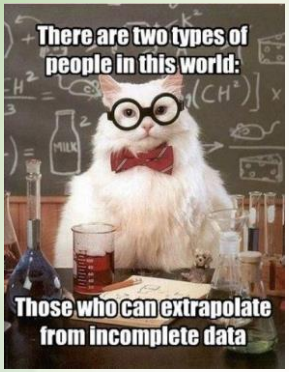
Checkouts per 100 Visits by Locale



Wild Thing 3

Checkouts per 100 visits by locale

- Larger changes in this data actually represent a smaller number of items.
- Although operating at different levels, checkouts at libraries in city and rural locales appear to be converging.

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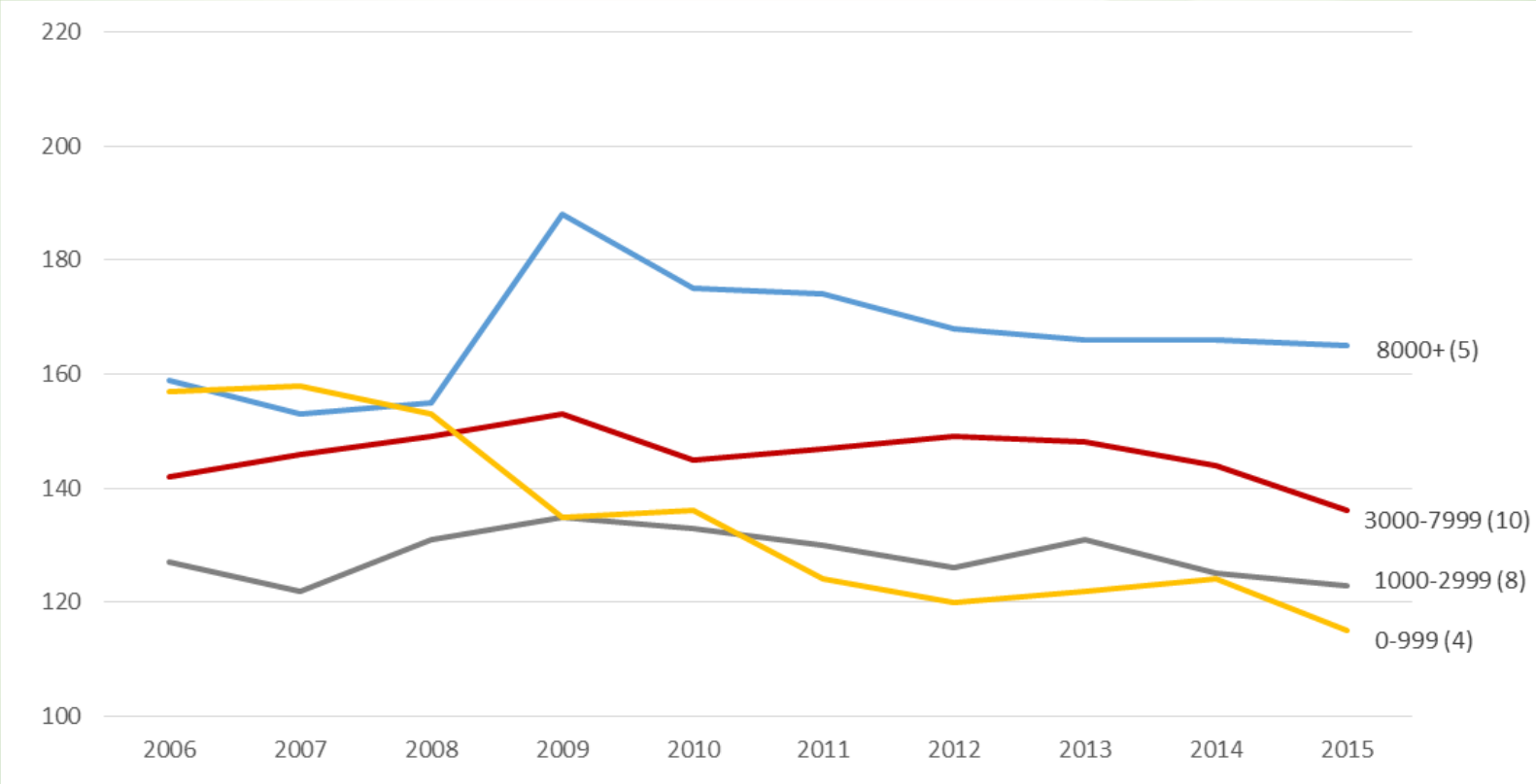
Checkouts / 100 Visits by Population



Res Pop	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
0-999 (4)	157	158	153	135	136	124	120	122	124	115
1000-2999 (8)	127	122	131	135	133	130	126	131	125	123
3000-7999 (10)	142	146	149	153	145	147	149	148	144	136
8000+ (5)	159	153	155	188	175	174	168	166	166	165

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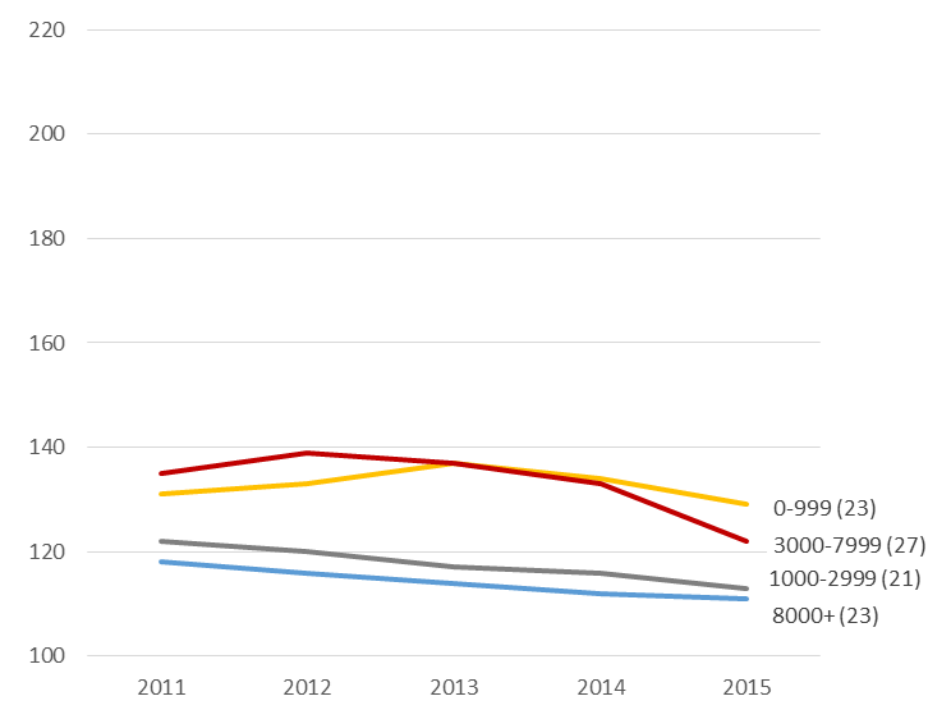
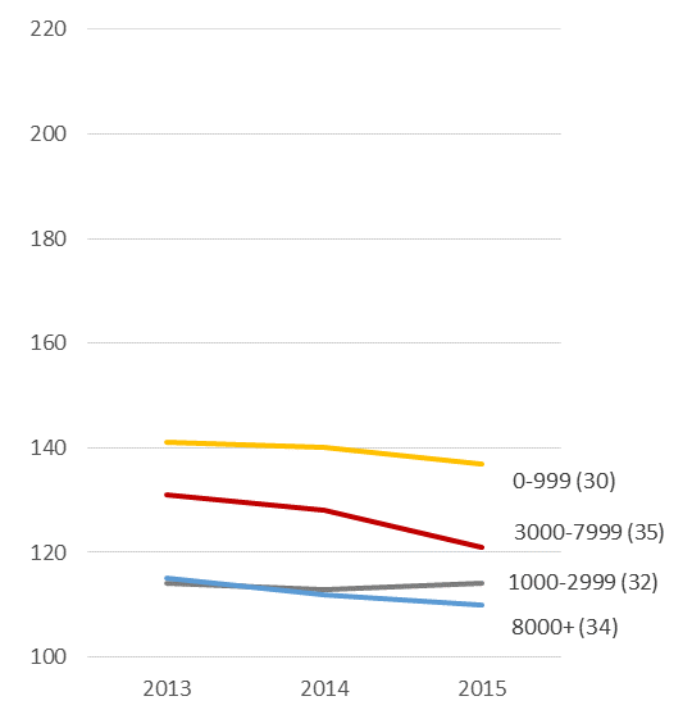
Checkouts / 100 Visits by Population





Res Pop	2011	2012	2013	2014	2015
0-999 (23)	131	133	137	134	129
1000-2999 (21)	122	120	117	116	113
3000-7999 (27)	135	139	137	133	122
8000+ (23)	118	116	114	112	111

Res Pop	2013	2014	2015
0-999 (30)	141	140	137
1000-2999 (32)	114	113	114
3000-7999 (35)	131	128	121
8000+ (34)	115	112	110

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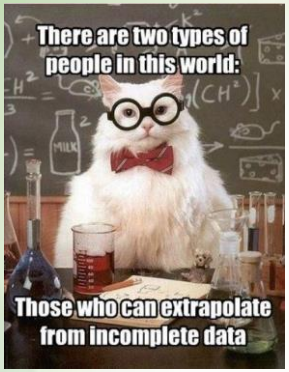
Checkouts / 100 Visits by Population



Wild Thing 4

Checkouts per 100 visits by resident population

- In recent years, libraries in smaller municipalities have higher checkouts than larger municipalities.
- Recession circulation peaks appear in different groups (locale, population), suggesting a need for multiple factors.

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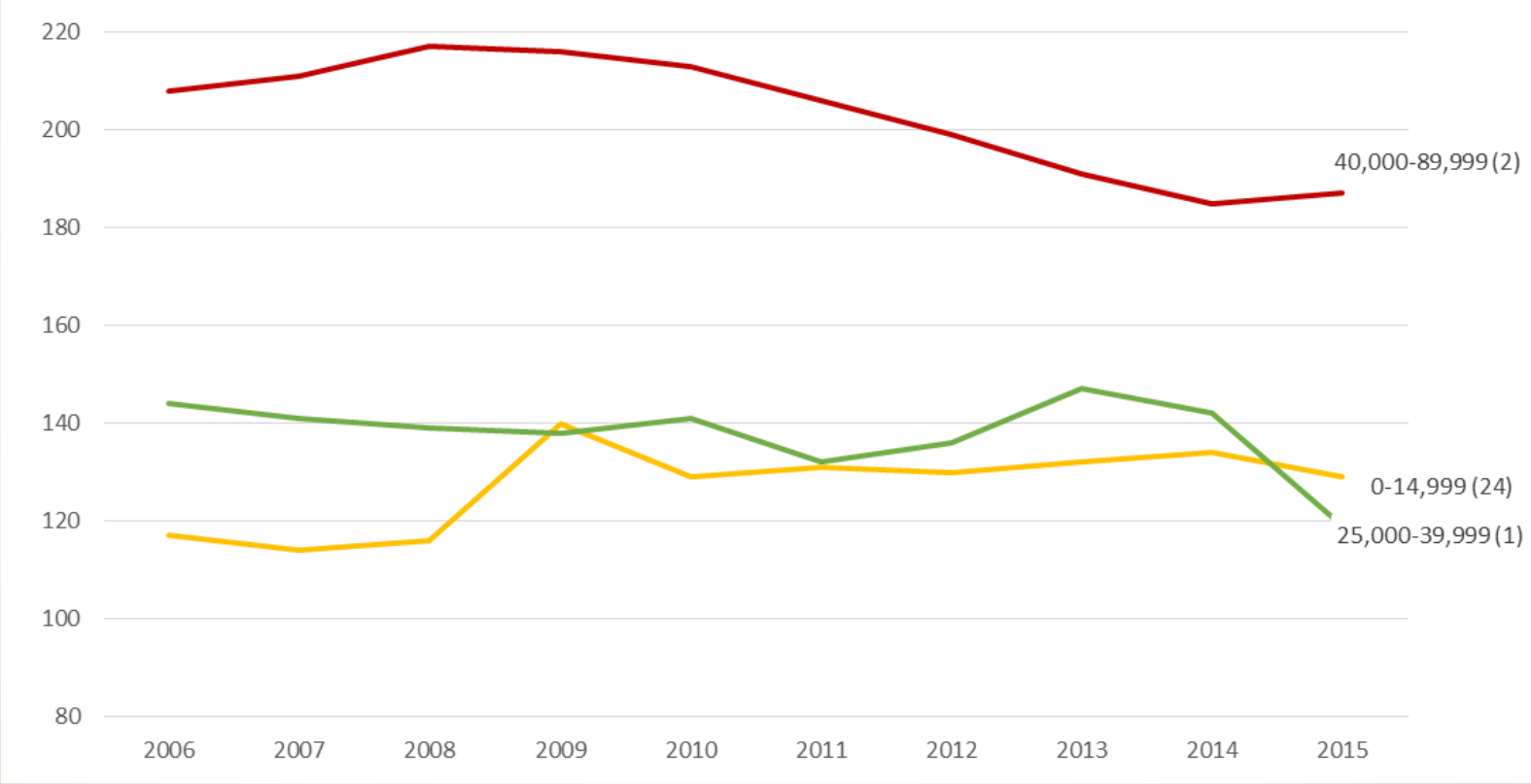
Checkouts / 100 Visits by Collection



Collection Size	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
0-14,999 (24)	117	114	116	140	129	131	130	132	134	129
15,000-24,999 (0)										
25,000-39,999 (1)	144	141	139	138	141	132	136	147	142	119
40,000-89,999 (2)	208	211	217	216	213	206	199	191	185	187
90,000+ (0)										

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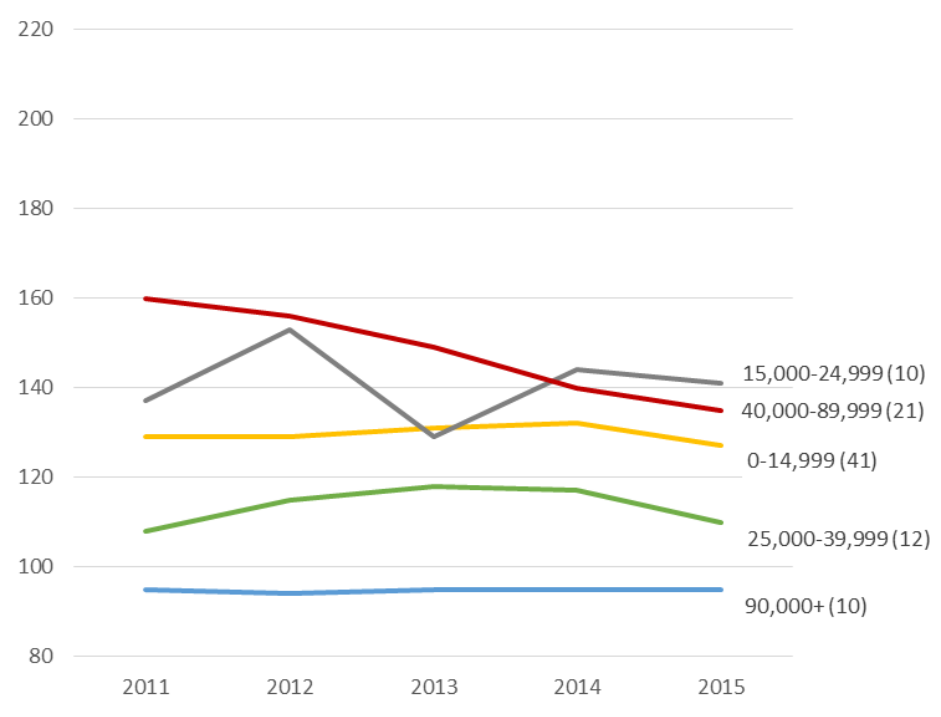
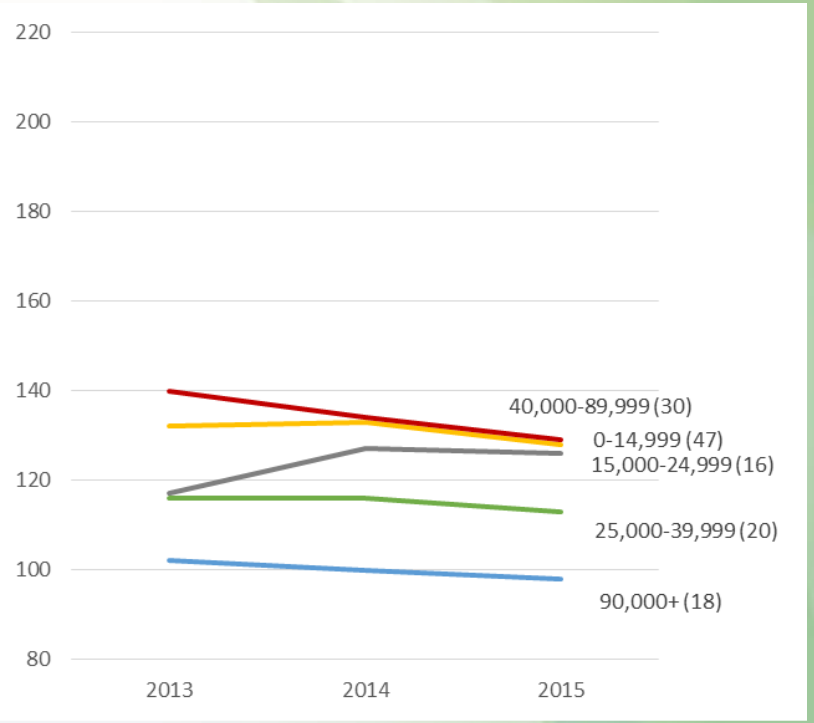
Checkouts / 100 Visits by Collection





Collection Size	2011	2012	2013	2014	2015
0-14,999 (41)	129	129	131	132	127
15,000-24,999 (10)	137	153	129	144	141
25,000-39,999 (12)	108	115	118	117	110
40,000-89,999 (21)	160	156	149	140	135
90,000+ (10)	95	94	95	95	95

Collection Size	2013	2014	2015
0-14,999 (47)	132	133	128
15,000-24,999 (16)	117	127	126
25,000-39,999 (20)	116	116	113
40,000-89,999 (30)	140	134	129
90,000+ (18)	102	100	98

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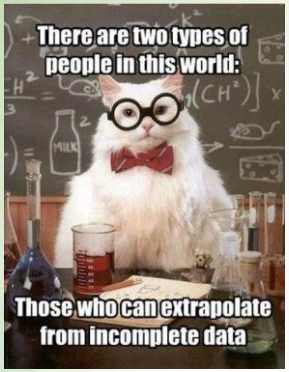
Checkouts / 100 Visits by Collection



Wild Thing 5

Checkouts per 100 visits by collection size

- Size of collection does not assure higher checkouts per visit

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Putting It All Together

What's the big picture?

All of the trends we've shown are (generally) true.

Individually, none of the trends are true enough.

Checkout data won't help public libraries much unless it can be presented in terms of a combination of visits, library locale, resident population, and collection size.

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Putting It All Together

A recipe for data sausage

Average each resident population for 3, 5 & 10 years.

Average each collection size for 3, 5 & 10 years.

Assign numerical values to locales.

Multiply the three numbers for 3, 5 & 10 years.

Group results into ranges of values (A B C D).

Graph checkouts per 100 visits by the ranges.

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Putting It All Together

Examples

Madison Public Library 2013-2015

- Average resident population 240,123
- Average collection size 780,463
- City, Midsize Locale 42

Result ÷ 1,000,000 7,871,099 (A)

Rock Springs Public Library 2013-2015

- Average resident population 313
- Average collection size 8,954
- Rural, Distant Locale 12

Result ÷ 1,000,000 34 (D)

2013-2015
ABCD Ranges

A	90,000+	(10)
B	10,000-89,999	(30)
C	1,000-9,999	(33)
D	0-999	(52)

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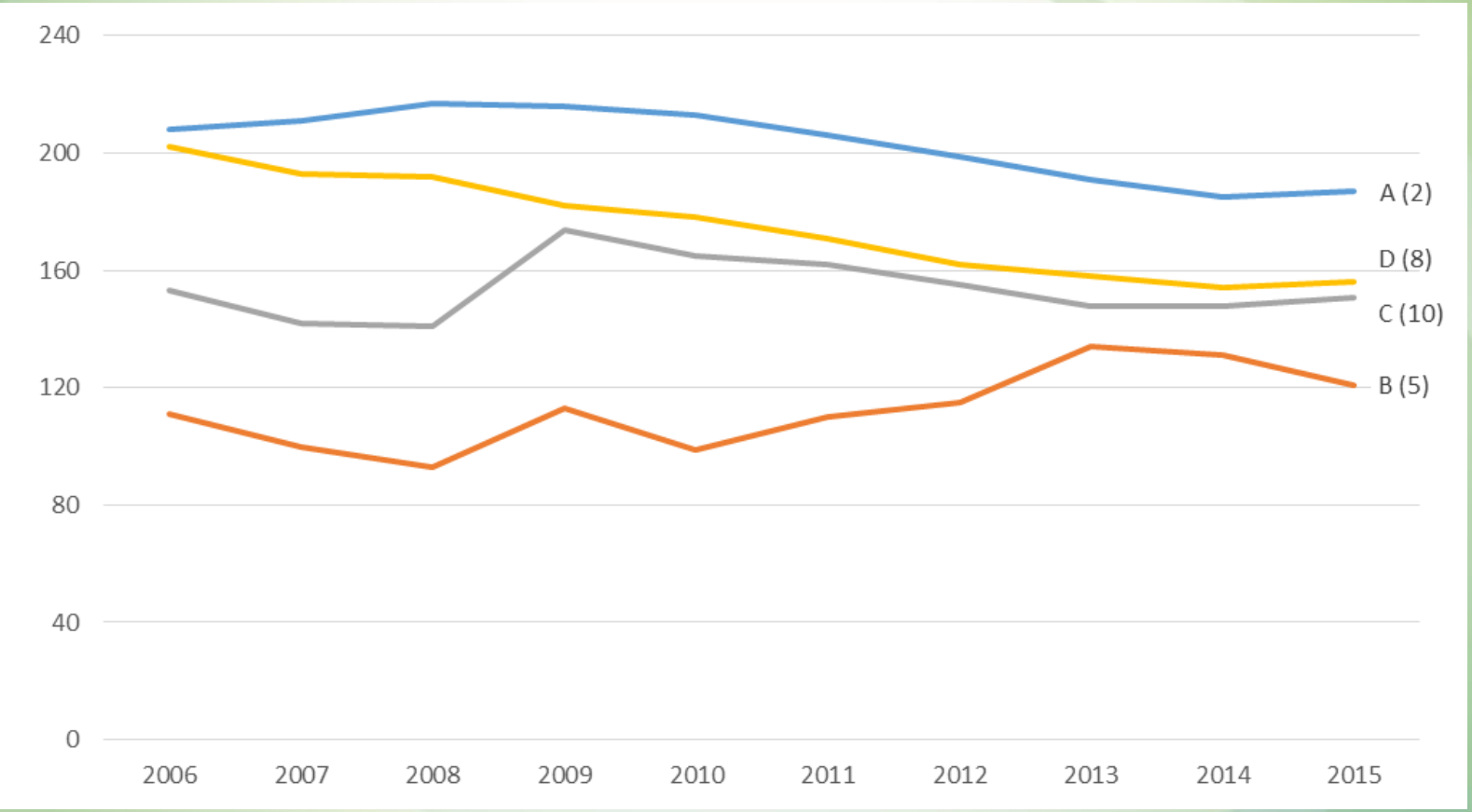
Checkouts / 100 Visits by ABCD

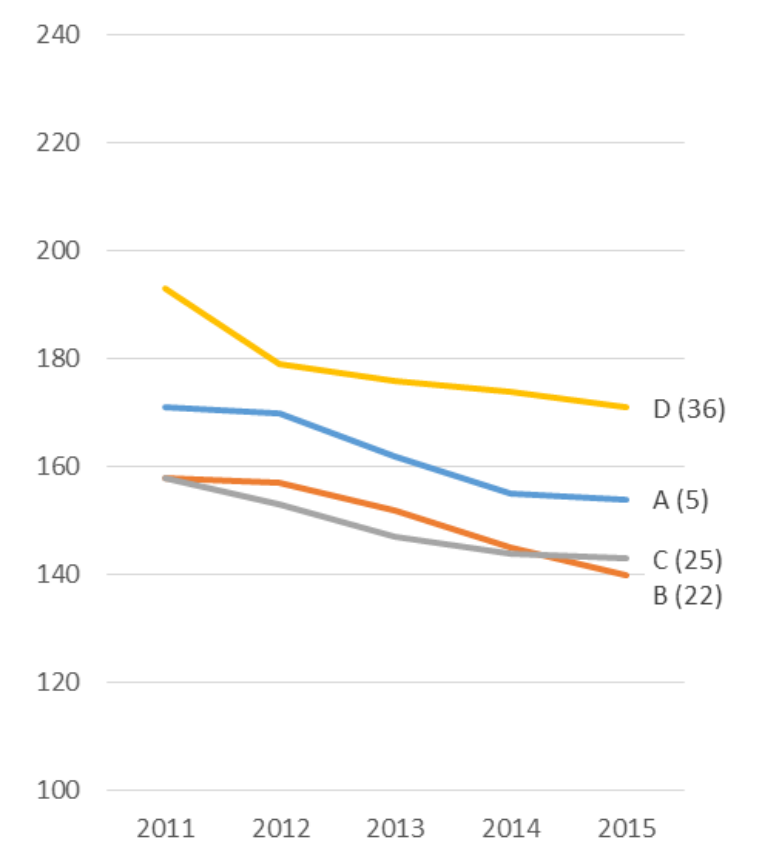


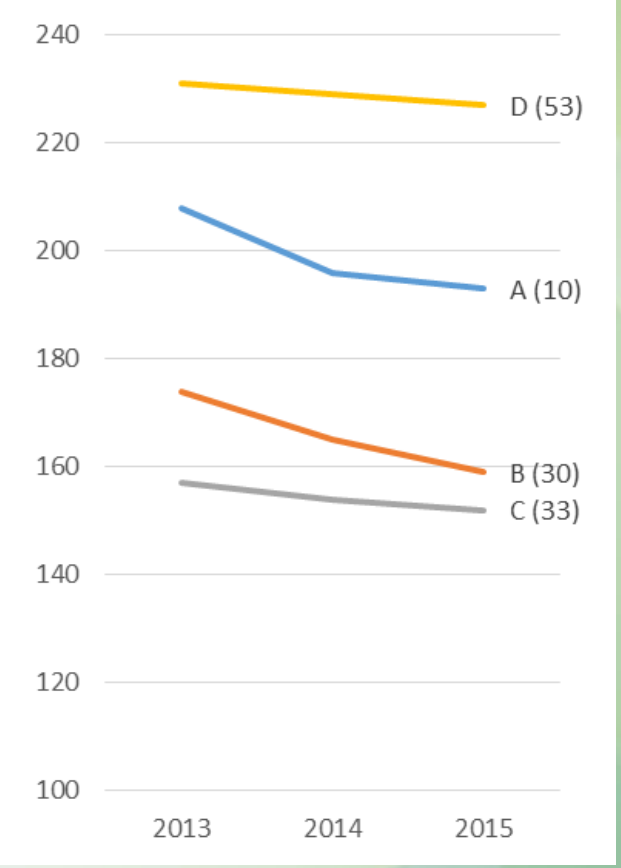
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
A (2)	208	211	217	216	213	206	199	191	185	187
B (5)	111	100	93	113	99	110	115	134	131	121
C (10)	153	142	141	174	165	162	155	148	148	151
D (8)	202	193	192	182	178	171	162	158	154	156

A: 90,000+
B: 10,000-89,999
C: 1,000-9,999
D: 0-999

WISCONSIN DEPARTMENT OF PUBLIC INSTRUCTION

Checkouts / 100 Visits by ABCD





A: 90,000+
B: 10,000-89,999
C: 1,000-9,999
D: 0-999

	2011	2012	2013	2014	2015
A (5)	171	170	162	155	154
B (22)	158	157	152	145	140
C (25)	158	153	147	144	143
D (36)	193	179	176	174	171

	2013	2014	2015
A (10)	208	196	193
B (30)	174	165	159
C (33)	157	154	152
D (53)	231	229	227

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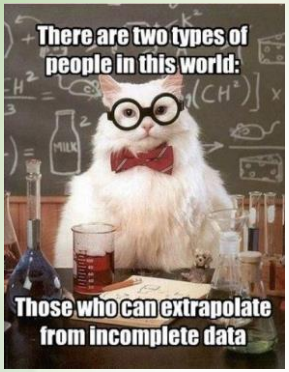
Checkouts / 100 Visits by Collection



Wild Thing 60 (3 x 4 x 5)

- When people come to their public library, they continue to check out comparable amounts of material.
- Overall, staff renewal is not declining. User renewal is less in recent years.
- Checkouts are higher for libraries at both ends of the ABCD range.
- In middle ranges, checkouts appear more susceptible to change.

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The Big Question(s)

Is our experiment worth continuing?

If this work is valuable to you, DPI needs data that is more complete:

- Visits by actual count at all public libraries and library branches
- Checkouts of material by library and branch
- User renewal of material by library and branch
- Staff renewal of material by library and branch

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The Big Question(s)

How can DPI help make that happen?

What do the libraries and systems need?

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The Big Question(s)

Systems voluntarily participated in this project and used their time to compile large amounts of data.

Thank you.

Would you support further exploration of circulation data by material type?

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The Big Question(s)

Thirty years ago, the public library community agreed that circulation of material was a reasonable and accurate measure of overall library service use.

What other data should also be collected or better collected about library use?

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Where the Wild Things Are

Circulation Data Revealed

2016 WAPL Annual Conference

Public Library Development Team: dpi.wi.gov/pld
Presentation PDF: tinyurl.com/16WAPLcirc
About locale codes: nces.ed.gov/ccd/rural_locales.asp

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