

# From Toy to Tool: Data Visualization Service Learning Project

- Presenters:
  - Prof. Kathleen Nesper CPA/CFF, CFE
  - Matthew Smith (MS Acc'16) – CPA candidate
- Topic: MGA617 Advanced Managerial Accounting Seminar – Service Learning Project for a community non profit

# Agenda:

- Background
- Project Description
- Results – Interactive
- Recommendations
- Lessons learned
- Summary

# Data Visualization Service Learning Project

- Master of Science Accounting students
- **El Buen Amigo** – Latin American Cultural Association – Buffalo (<https://elbuenamigo.org/>)
- Tableau - business intelligence software that helps people see and understand their data ([tableau.com](https://tableau.com))
- MS Excel – utilized to organize data

# El Buen Amigo: Latin American Cultural Assoc.

- Founded in 1990 by Santiago Masferrer-ED
  - The store front features fair-trade clothing and gift items from around the world
- It is more than a store:
  - It's a collection of stories and art
- Hosts a variety of cultural programs for the community:
  - Salsa Dancing Lessons and Spanish Classes

# Executive Director/Board Questions:

- Operate 7 days each week?
- Country/area with most sales?
- Profile of customer?
- Busiest time of year?

# Project Description

- Goal was to take this →
- And make this ↓

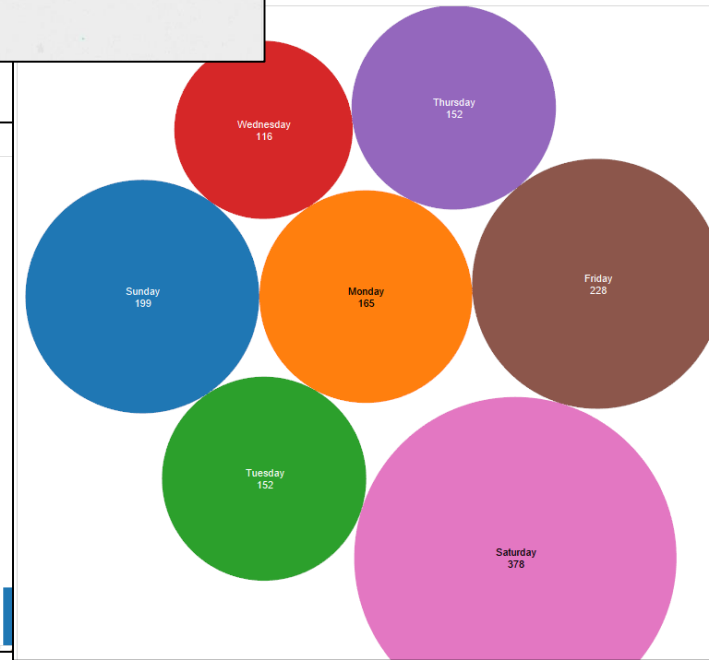
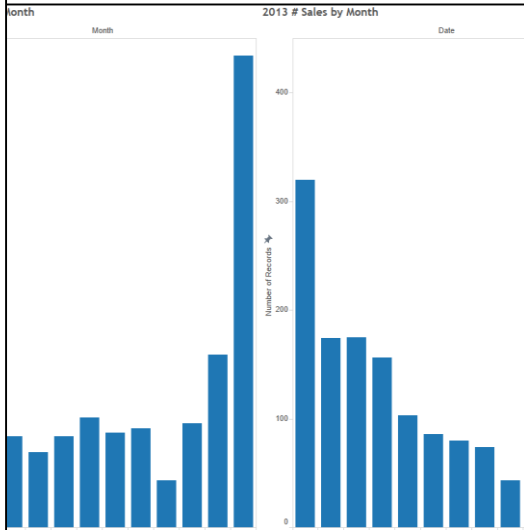
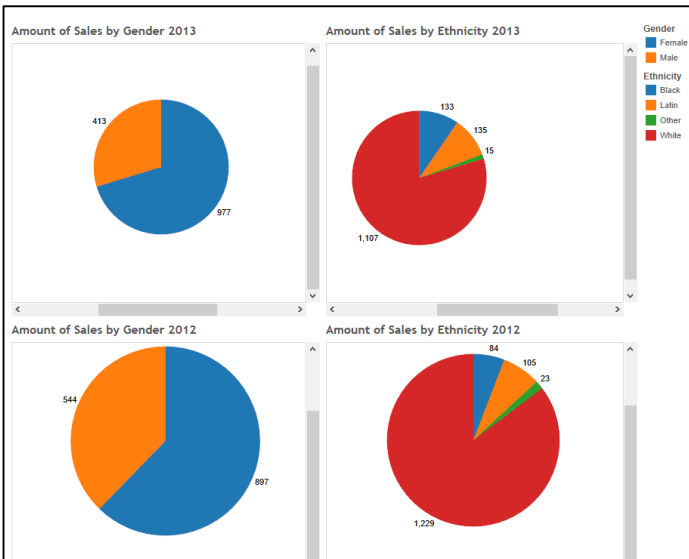
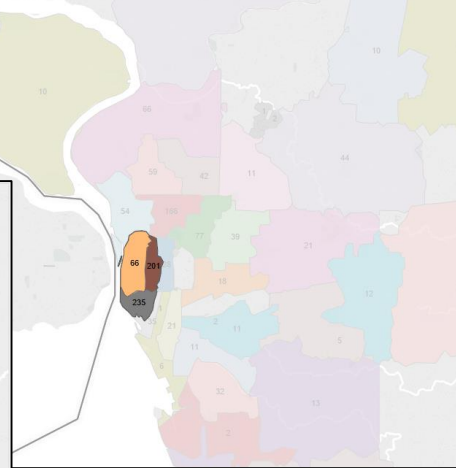
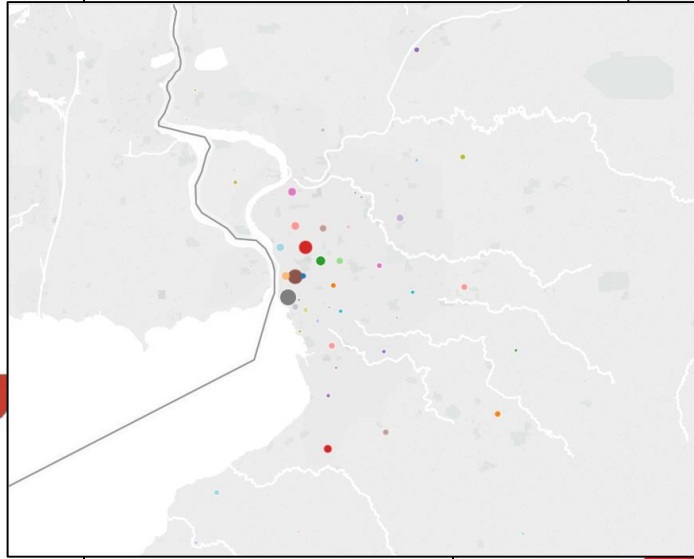
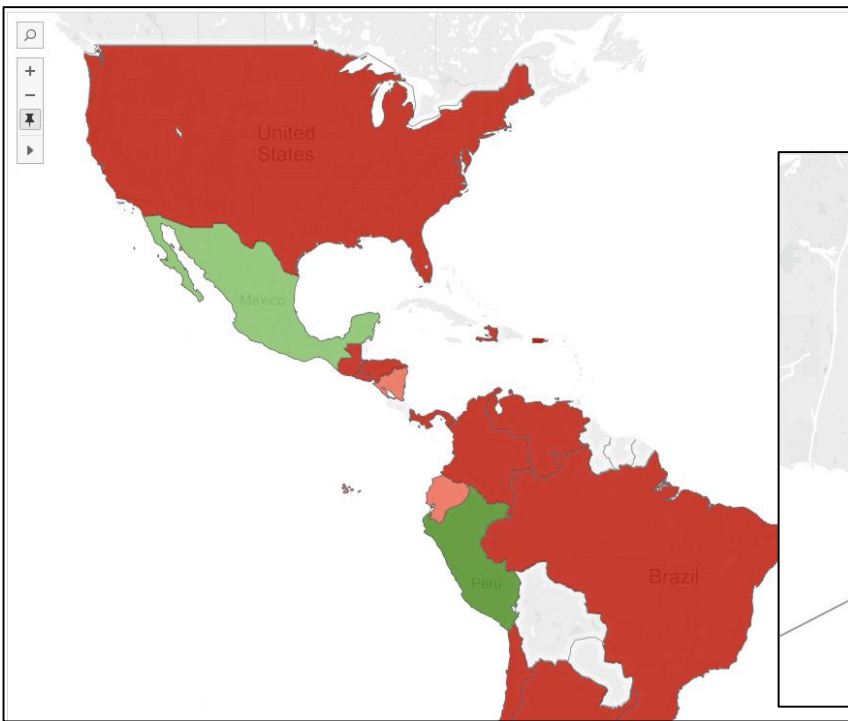
	A	B	C	D	E	F	G	H	I
	Item	Country	Price	Quant	Type of Payme	Zip code	Sex	Rac	Date
1	Cross	Nepal	10	1	Cash	14225	Male	White	12/29/2013
2	Hanging	Mexico	15	1	Cash	14207	Female	White	12/21/2013
3	Mirrors	Guatemala	45	1	Cash	14207	Female	White	12/21/2013
4	Creatune	Peru	3	1	Cash	14207	Female	White	12/21/2013
5	Key Chain	Peru	5	1	Cash	14207	Female	White	12/21/2013
6	Chess	Peru	50	1	Cash	14207	Female	White	12/21/2013
7	Finger Puppet	Peru	15	1	Cash	14207	Female	White	12/21/2013
8	Basket	Nicaragua	10	1	Cash	14207	Female	White	12/21/2013
9	Macarina	Peru	12	1	Cash	14207	Female	White	12/21/2013
10	Christmas Ornament	El Salvador	3	1	Cash	14207	Female	White	12/21/2013
11	Basket	Nicaragua	22	1	Cash	14207	Female	White	12/21/2013
12	Bag	Guatemala	25	1	Cash	14217	Male	White	12/19/2013
13	Bracelet	Guatemala	30	1	Cash	14217	Male	White	12/19/2013
14	Wall Hanging	Guatemala	60	1	Credit Card	14223	Female	White	12/18/2013
15	Gourd	Nicaragua	12	1	Credit Card	14223	Female	White	12/18/2013
16	Tamborini	Peru	10	1	Credit Card	14223	Female	White	12/18/2013
17	Key Chain	Peru	20	1	Credit Card	14216	Male	White	12/18/2013
18	Lizard	Guatemala	15	1	Cash	14216	Female	White	12/18/2013
19	Cup	Guatemala	10	5	Cash	14216	Female	White	12/18/2013
20	Butterfly Cloth	Mexico	12	1	Credit Card	14217	Female	White	12/17/2013
21	Purse	Mexico	3	1	Credit Card	14217	Female	White	12/17/2013
22	Mirrors	Peru	10	1	Cash	14216	Female	White	12/17/2013
23	Sweater	Ecuador	20	1	Credit Card	14150	Female	White	12/16/2013
24	Head Band	Ecuador	10	2	Credit Card	14150	Female	White	12/16/2013
25	Hat	Nepal	10	1	Credit Card	14150	Female	White	12/16/2013
26	Glove	Peru	6	2	Credit Card	14150	Female	White	12/16/2013
27	Shawl	Mexico	25	1	Credit Card	14150	Female	White	12/16/2013
28	Shawl	Peru	60	1	Credit Card	14150	Female	White	12/16/2013
29	Shawl	Mexico	20	2	Credit Card	14150	Female	White	12/16/2013
30	Blouse	Peru	40	1	Credit Card	14150	Female	White	12/16/2013
31	Key Chain	Guatemala	5	7	Credit Card	14150	Female	White	12/16/2013

2013

14216

14075

1-4-13	W.W	C.C	27	ch. sw	Ecu	Sat	1-5-13	W.W	C	23	tiger puppet	Peru	
1-4-13	W.W	C.C	27	cross	E.S.		1-5-13	W.W	C	2	card	U.S.	
1-4-13	W.W	C.C	12	iron work	Ni		1-5-13	W.W	C	10	C.D	U.	
1-25-13	W.W	C.	26.00	coin purse	Pe		1-5-13	W.W	C	7	coffee	F.T	
1-25-13	W.W	C.	5+6.11	day	Chile		1-5-13	W.W	C.	10	cross	Pe	
1-25-13	W.L	C.	7	hat	NE		1-12-13	W.W	C.	20	bracelet	Pe	
2-8-13	W.W	C.	10	glove	Ne		1-17-13	W.W	check	60	Mola	PAAAN	
	W.W	C.	10	glove	Peru		1-19-13	W.W	C.C	60	Clay	Ni	
3-1-13	W.W	C.C	50	coat	Ne		1-19-13	W.W	C.C	12	fcara	Ni	
4-12-13	W.W	C.C	2x10=20	socks	NE		1-19-13	W.W	C.C	10	glove	Per	
4-12-13	W.W	C.C	7	hat	NE		1-19-13	W.W	C.C	5	head band	NE	
4-24-13	W.M	C	25.10	laffer	E.S.		Fri	2-8-13	W.W	C.C	47	Cross	E
6-9-12	W.W	C.C	3	bracelet	Chile		Fri	4-4-13	W.W	C.C	110	pot	Ni
6-9-13	W.W	C.	16	papes	Peru		Fri	4-4-13	W.L	C	4	cross	PE
6-9-13	B.W	C.	7	coffee	Ne			4-4-13	W.L	C	3	cross	E
6-20-13	W.W	C.	3	egg	Peru		Wed	4-11-13	W.W	C	4	cross	P
6-20-13	W.W	C.	10	Manga	Peru		Sun	4-28-13	W.F	C	18	pendiente	P
6-21-13	W.W	C	3	bracelet	Peru			4-28-13	W.F	C	18	pendiente	P
7-27-13	W.W	C.C	40	shirt	Peru			4-28-13	W.F	C	15	bracelet	P
7-27-13	W.W	C.C	10	scarf	Guat			4-28-13	W.F	C	30	chess	I
7-29-13	W.W	C.C	25	ch. sw	Peru		Thurs	5-2-13	W.W	C.C	10	earring	C
8-4-13	W.W	C.C	50	Cardigan	Peru			5-2-13	M.L	C	5	hachy sack	I
8-15-13	W.W	C.	40	blouse	Peru			5-2-13	M.L	C	2x5=10	drum	I
8-20-13	W.W	C.	10	flute	Peru		Fri	5-11-13	W.M	C	7	coffee	I
8-31-13	W.W	C.	5x35=175	letters	E.S.			5-11-13	W.M	C	15	ring	N
8-31-13	W.W	C	5	cross	E.S.		Mon	5-20-13	W.W	C.C	25	shirt	I
9-1-13	W.W	C.	8	earring	Colombia			5-16-13	W.W	C.C	10	maracans	I
10-5-13	W.M	C.	20	Wood	Niqa			5-20-13	W.W	C.C	15	flag	I
10-8-13	W.W	C.	3	bracelet	Guat			5-20-13	W.W	C.C	3	bracelet	I
10-8-13	W.W	C.	3	key chain	E.S.		Wed	7-3-13	W.W	C	40	cross	I
10-26-13	W.W	C.C	10	hat	Eru			7-3-13	W.W	C	8	cross	I
10-26-13	W.W	C.C	25	ch. sw	Eru		Sat	7-6-13	W.M	C	4x3=12	bracelet	I
11-3-13	W.W	C.	10	glove	Peru		Sat	7-13-13	W.W	C	3	Gandhy	I
11-23-13	W.M	C.	10	Cup	Kenya			7-13-13	W.W	C	10	Wool	I
11-23-13	W.M	C.	15	Lizard	Mex		Sat	8-17-13	W.M	C.	12	St. Francis	I
11-23-13	W.M	C	3	bracelet	Mex			8-17-13	W.M	C	20	horse head	I
11-30-13	W.W	C	37.5	chess	Mex		Fri	10-25-13	W.W	C.C	2x3=6	bracelets	I
11-30-13	W.W	C	37	scarf	Guat			10-25-13	W.W	C.C	2x3=6	ocarina	I
11-30-13	W.W	C	5	bracelet	Guat			10-25-13	W.W	C.C	5	flute	I
11-30-13	W.W	C	8	key chain	Guat			10-25-13	W.W	C.C	2x3=6	bubble head	I
12-1-13	W.M	C	20	key chain	Guat			12-25-13	W.W	C.C	3	worry Owl	I



# Tableau: Interactive



# Recommendations:

- future data to be recorded digitally and in accordance with a formal data entry procedure
- inventory system where each piece of inventory is assigned a unique identification number

# Lessons Learned:

- Clean, Consistent and Accurate record keeping is essential for a business to flourish
- Utilize excel spreadsheet to help keep his demographic and inventory:
  - Trend analysis
  - aid in his reordering process
- Collaboration with the board is essential to ensure goal alignment

# Summary:

- Non profits – opportunity to engage students in a hands-on project
- Data –driven decision making
- Data exists – be creative, ask questions, learn operations
- Utilize educational/trial licenses, cases, training materials

# Questions?

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