City Exploration #1:

What does living in Census Tracts 203.01 and 203.03 look like?

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SSPUA 5262
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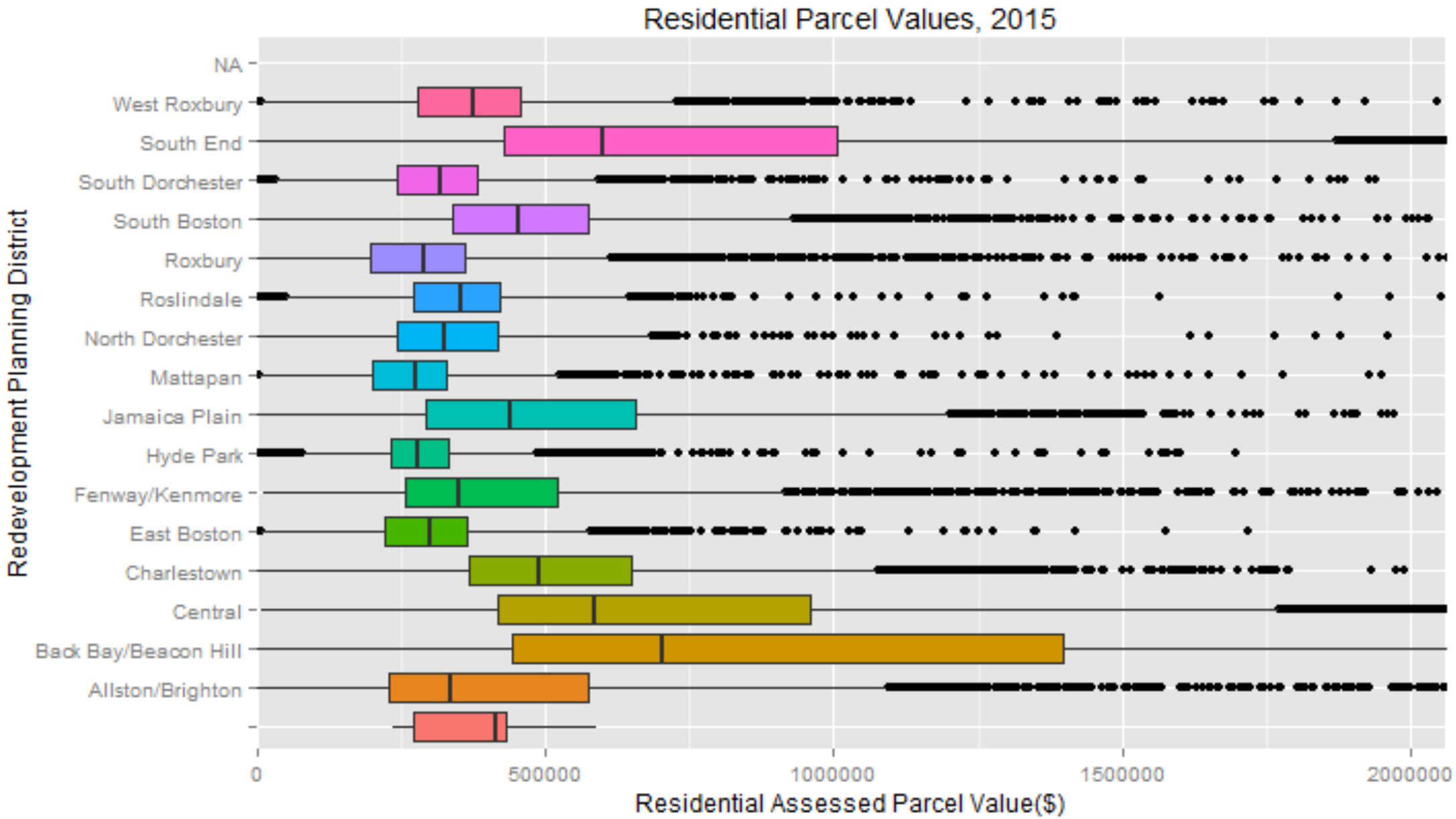
Where to go?

	Commerical/ Industrial	Residential	Tax-Exempt
Allston/Brighton	4.8	91.4	2.7
Back Bay/Beacon Hill	3.9	91.8	2.2
Central	14.0	76.2	6.4
Charlestown	3.9	89.5	5.4
East Boston	5.9	84.2	6.4
Fenway/Kenmore	7.0	76.5	13.7
Hyde Park	4.2	91.4	3.8
Jamaica Plain	3.2	89.7	5.9
Mattapan	3.3	85.8	10.5
North Dorchester	8.0	85.0	5.1
Roslindale	3.5	92.5	3.1
Roxbury	6.2	78.9	13.2
South Boston	6.6	88.2	3.8
South Dorchester	4.9	90.6	4.5
South End	3.4	89.9	4.1
West Roxbury	2.9	92.2	4.7

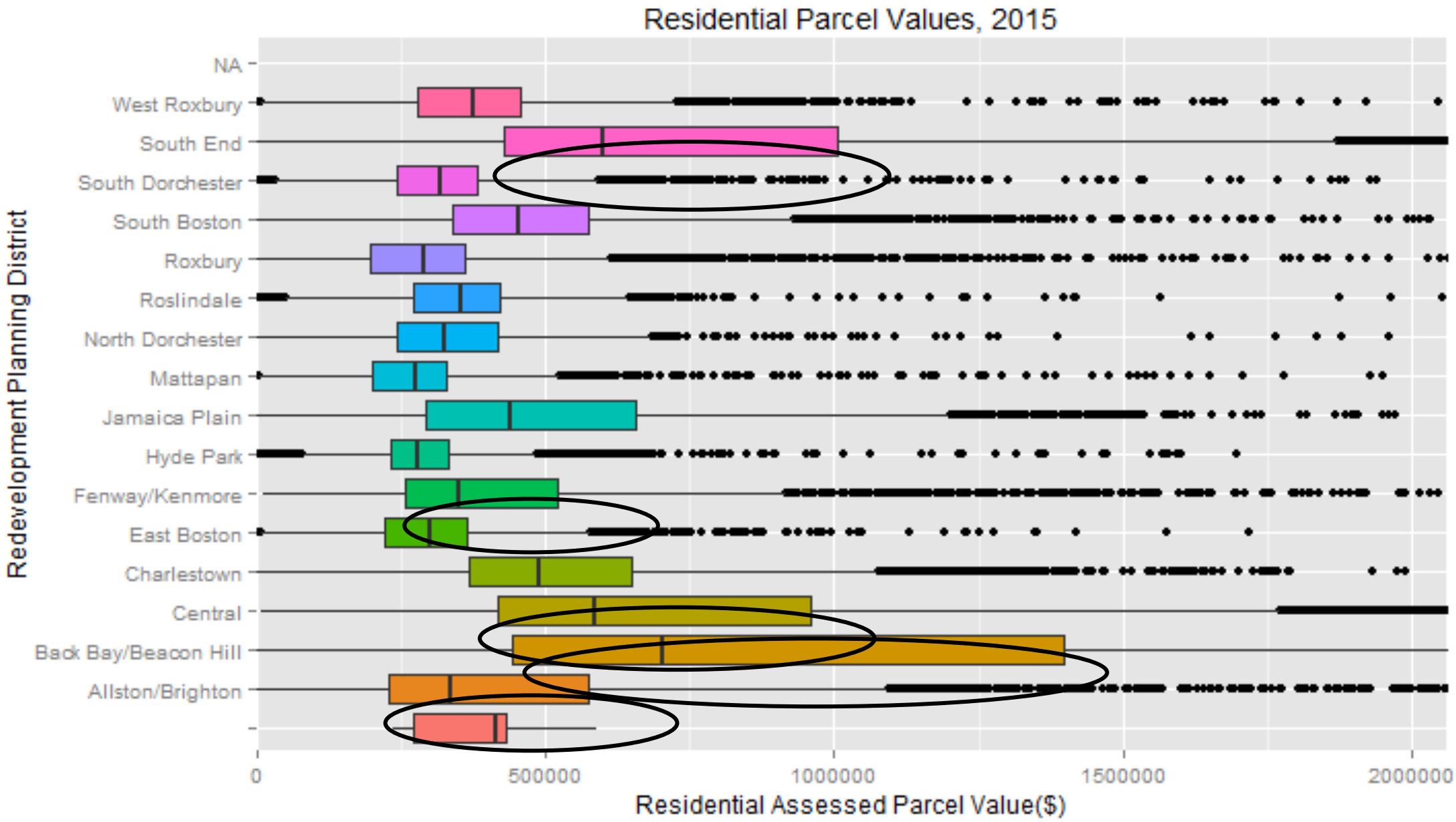
Proportion of Parcels by Land Use, 2015

- Tax Assessor's Database 2000-2015
- Which neighborhoods break the pattern in 2015?

```
t<- table (taxlong$BRA_PD, taxlong$X2015.LU)
print( round(prop.table(t, 1)*100, digits=1))
```



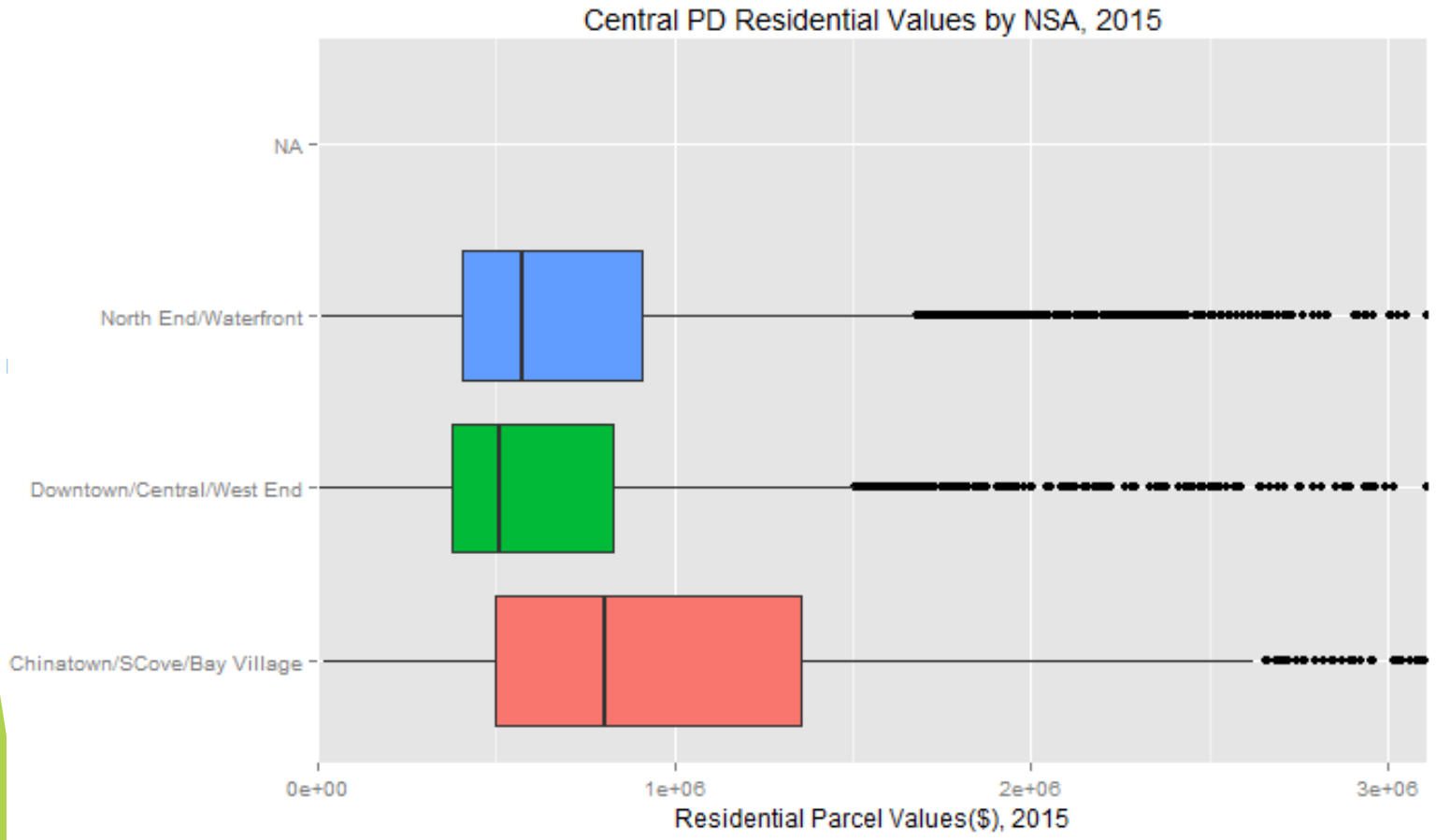
p<- ggplot(residential, aes(residential$BRA_PD, residential$X2015.AV)) p+geom_boxplot(aes(fill=residential$BRA_PD)) +coord_cartesian(xlim = c(0, 2061807))+ coord_flip(ylim=c(0, 2061807))+labs(x='Redevelopment Planning District', y='Residential Assessed Parcel Value($)', title="Residential Parcel Values, 2015')



Central Planning District is the Most Skewed(Pearson's Skewness Coefficient= 25.5)

```
require(e1071)
 skewness(cenres$X2015.AV, na.rm=TRUE, type=2)
```

Are there geographic differences within Central?

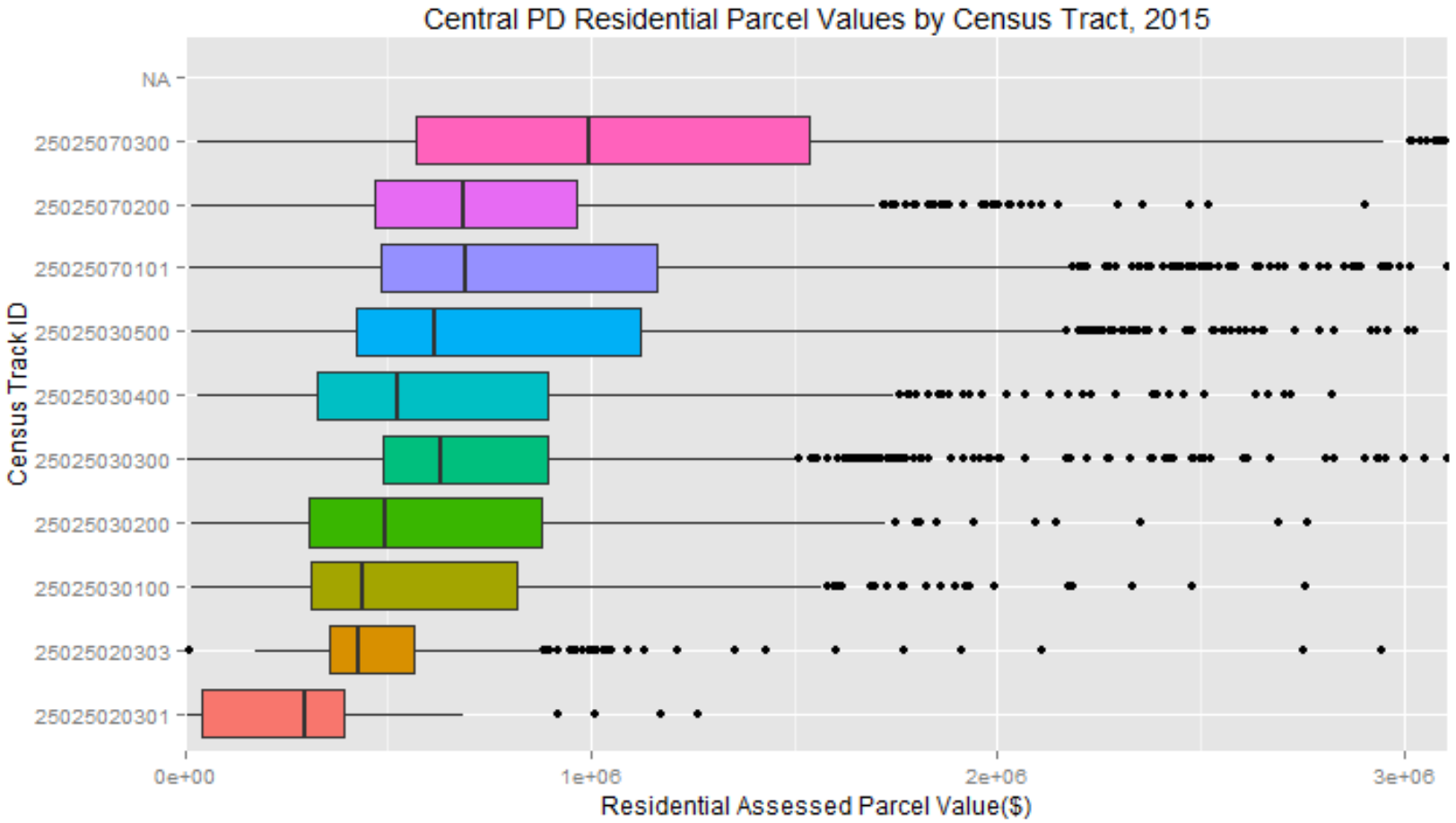


NSA (Inspectional Service Department Neighborhood Statistical Area)	# of Residential Parcels
Chinatown/ South Cove/ Bay Village	1340
Downtown/ Central/ West End	3372
North End/ Waterfront	4400

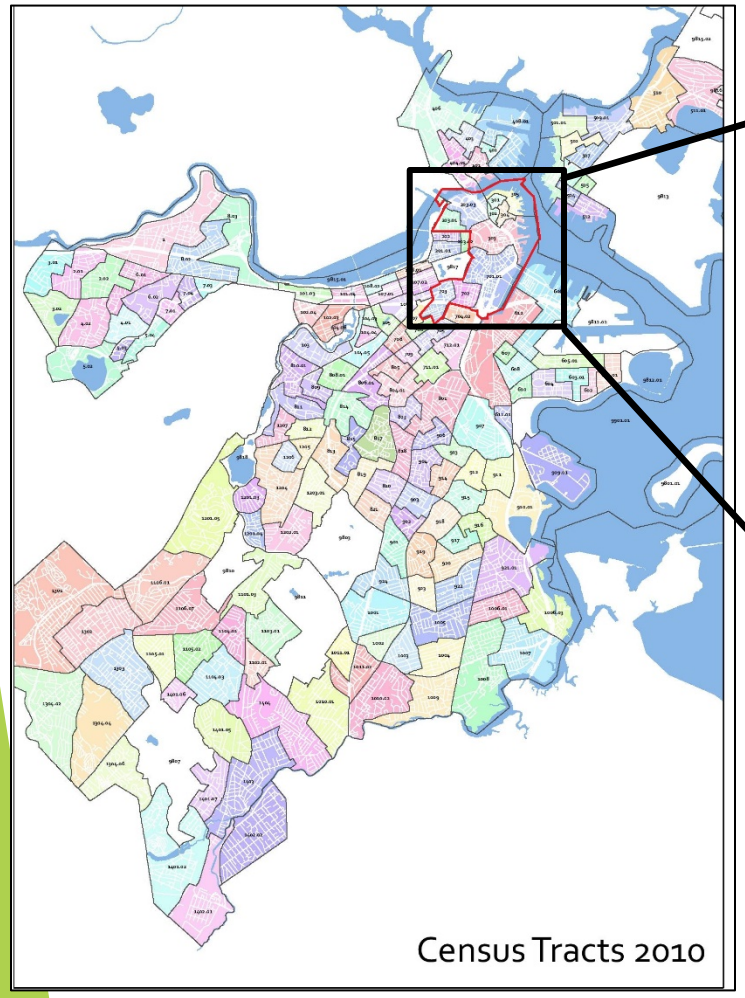
```
NSAres<- ggplot(cenres, aes(NSA_NAME, X2015.AV, na.rm=TRUE))
NSAres+geom_boxplot(aes(fill=cenres$NSA_NAME))+coord_cartesian(xlim = c(0, 3109654)+ coord_flip(ylim=c(0, 3109654))+
        labs(x='NSA', y='Residential Assessed Parcel Value($)')
```

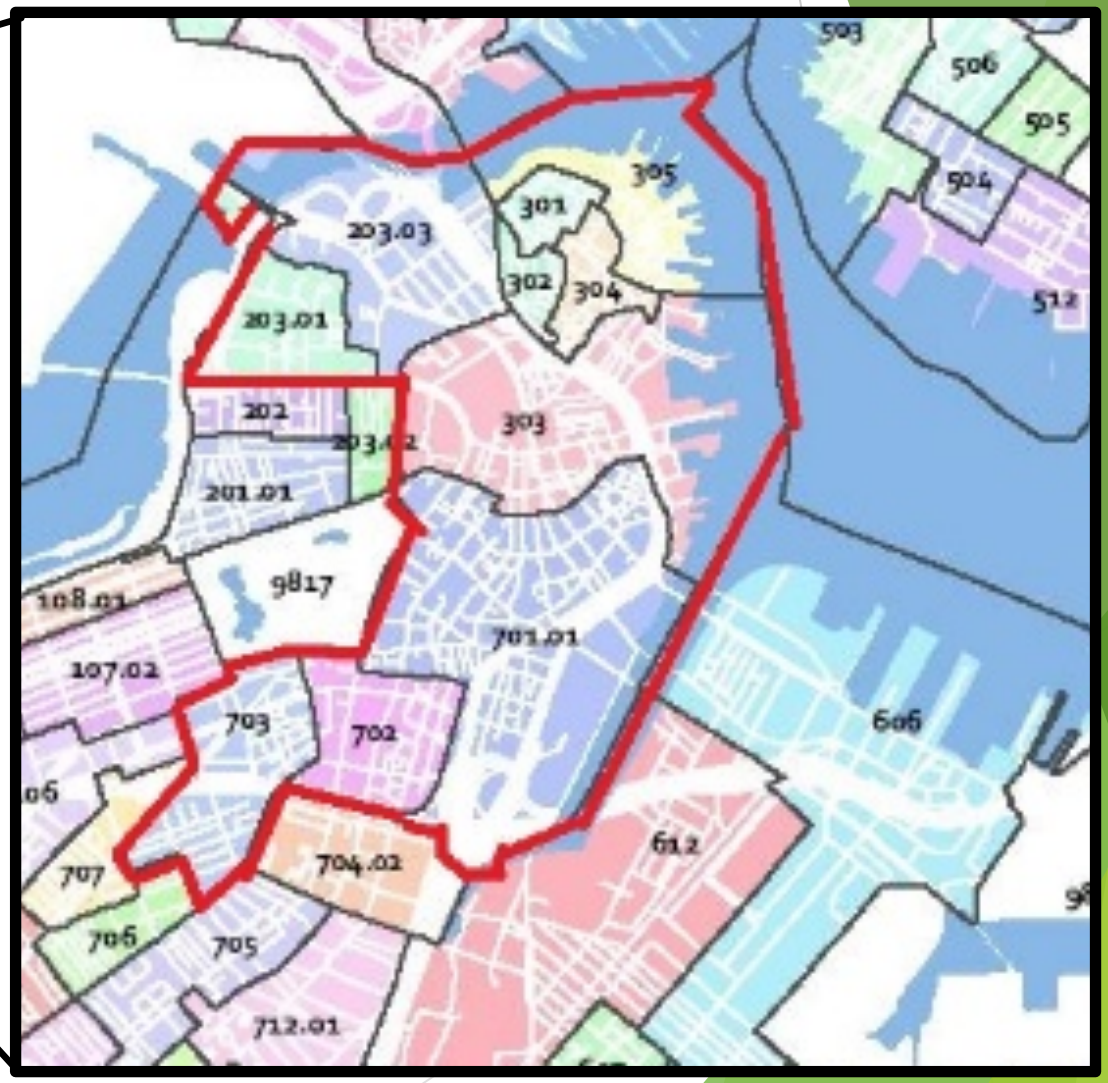
Are there geographic differences in Central?

- 17 Census Tracts (7 have <5 parcels→ excluded from analysis)

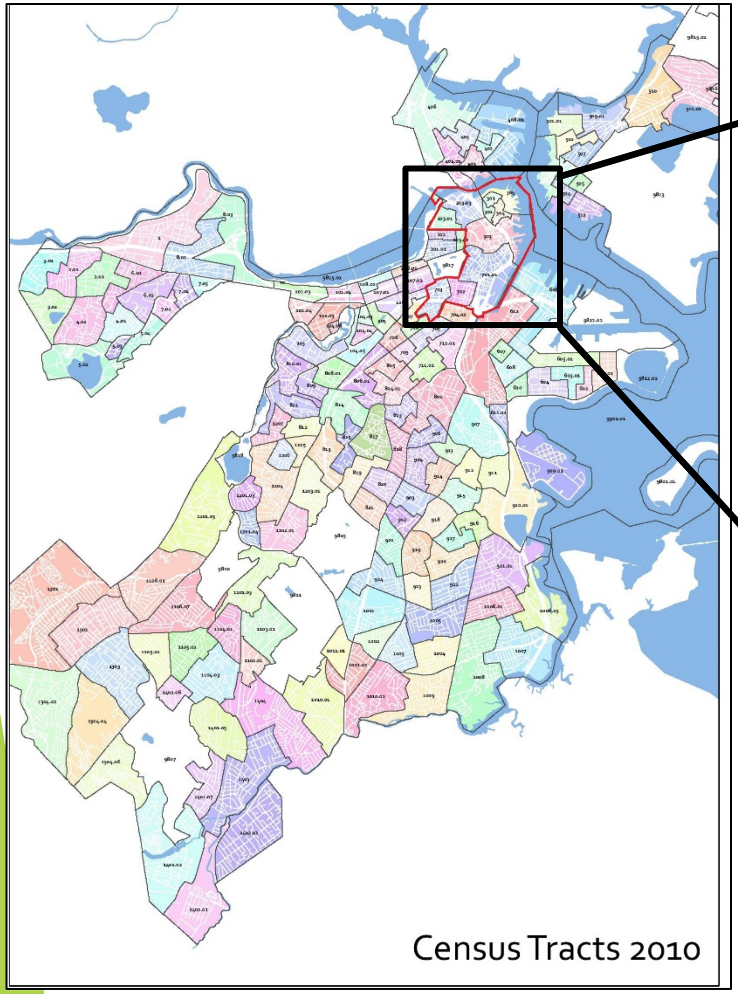


Off We Go!


Census Tracts 2010


503
506
505
504
305
301
203.03
302
304
512
203.01
202
303
201.01
9817
108.01
107.02
701.01
703
702
606
612
707
704.02
706
705
712.01

Off We Go!

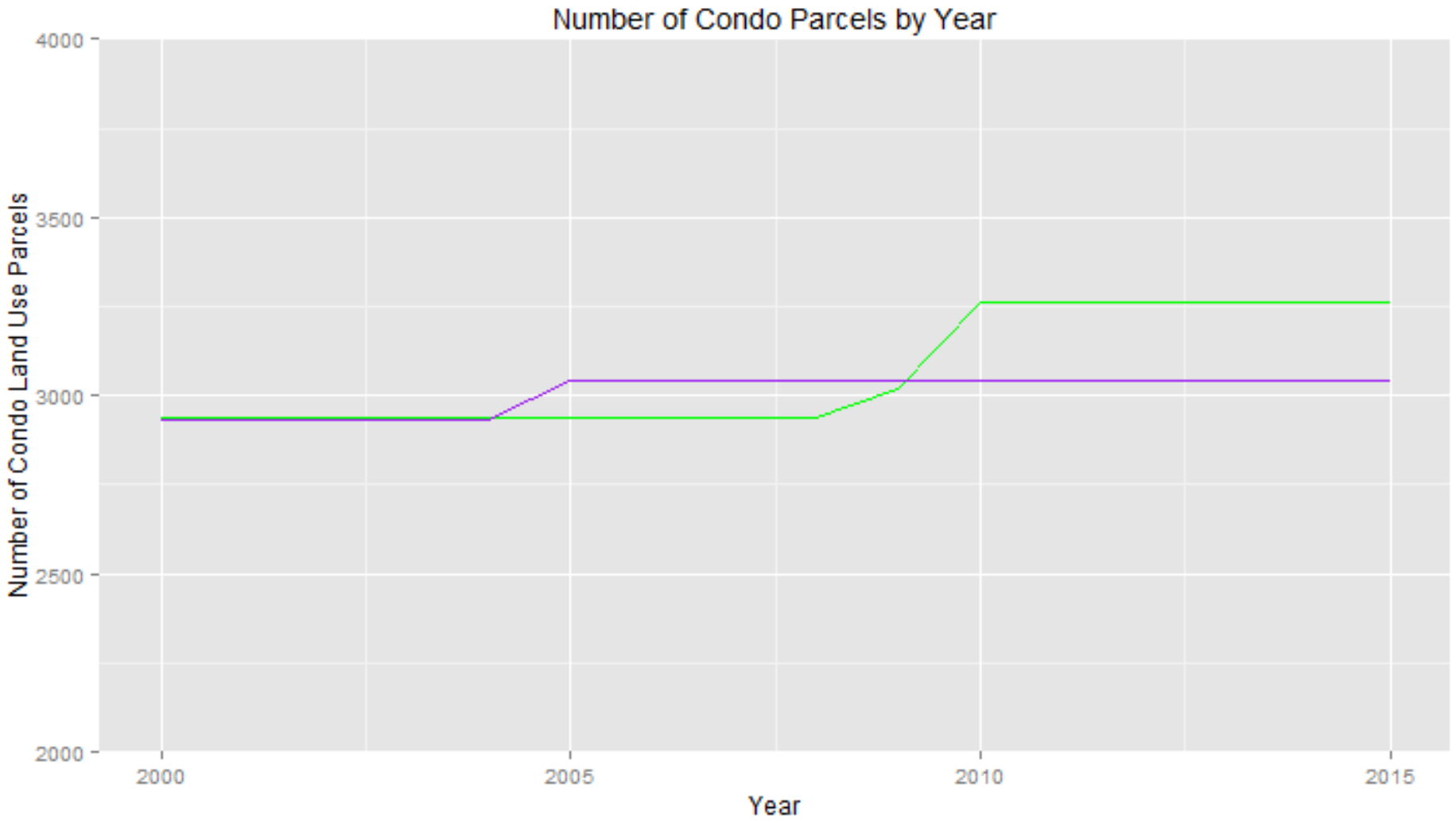

Census Tracts 2010


West End
203.03
301
North End
305
302
304
203.01
Longfellow Brdg
202
Gov't Center
303
203.02
201.01
Beacon Hill
9817
Financial District
108.01
701.01
107.02
702
Chinatown
703
06
707
704.02
612

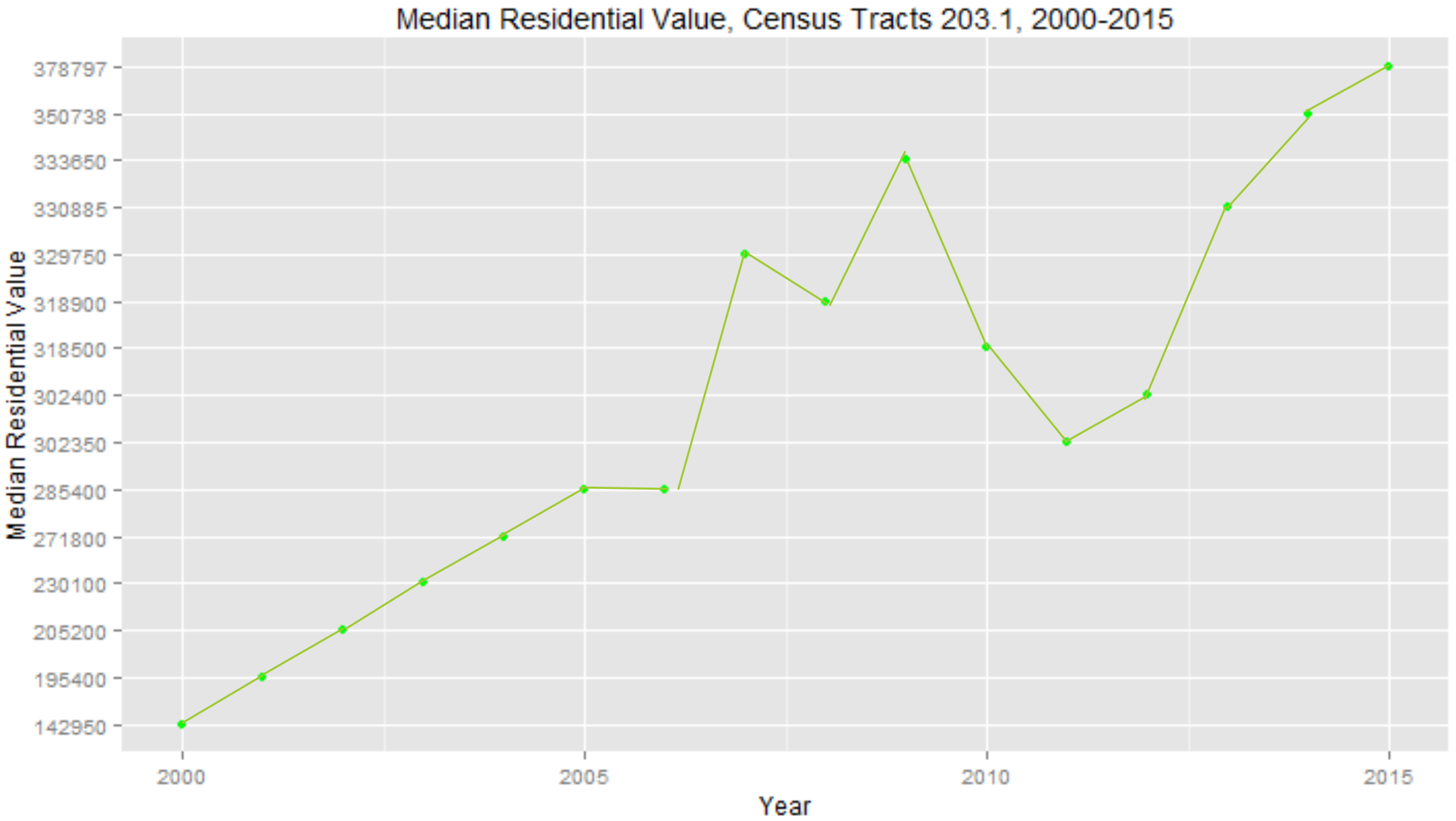
What types of residential parcels are there in Central?

Census Tract	Apartment	Condo	Condo Main	Condo Parking	Single Family	Two Family	Three Family	Four + Family	Mixed	Residential Land
203.01	0.12%	**59.06%**	**0.49%**	**39.01%**	0.12%	0.00%	0.00%	0.00%	0.99%	0.12%
203.03	0.67%	**95.99%**	**1.50%**	0.00%	0.00%	0.00%	0.00%	0.17%	1.50%	0.17%
301	6.27%	59.96%	7.67%	0.00%	2.44%	2.09%	5.40%	12.89%	2.79%	0.87%
302	4.46%	57.00%	6.69%	0.00%	1.62%	1.22%	4.20%	13.59%	8.92%	2.23%
303	0.14%	93.53%	3.30%	0.00%	0.07%	0.14%	0.00%	1.51%	1.15%	0.14%
304	3.29%	64.22%	7.79%	0.00%	0.66%	0.99%	2.31%	7.46%	12.95%	0.33%
305	1.22%	85.34%	5.26%	0.09%	0.28%	0.09%	1.69%	3.20%	2.44%	0.37%
701.01	0.10%	92.83%	3.61%	0.05%	0.00%	0.00%	0.05%	0.35%	2.96%	0.05%
702	1.90%	64.52%	4.05%	0.00%	1.90%	1.67%	3.10%	2.86%	18.81%	1.19%
703	1.70%	78.53%	6.06%	0.00%	5.23%	1.31%	2.01%	4.16%	1.06%	0.12%

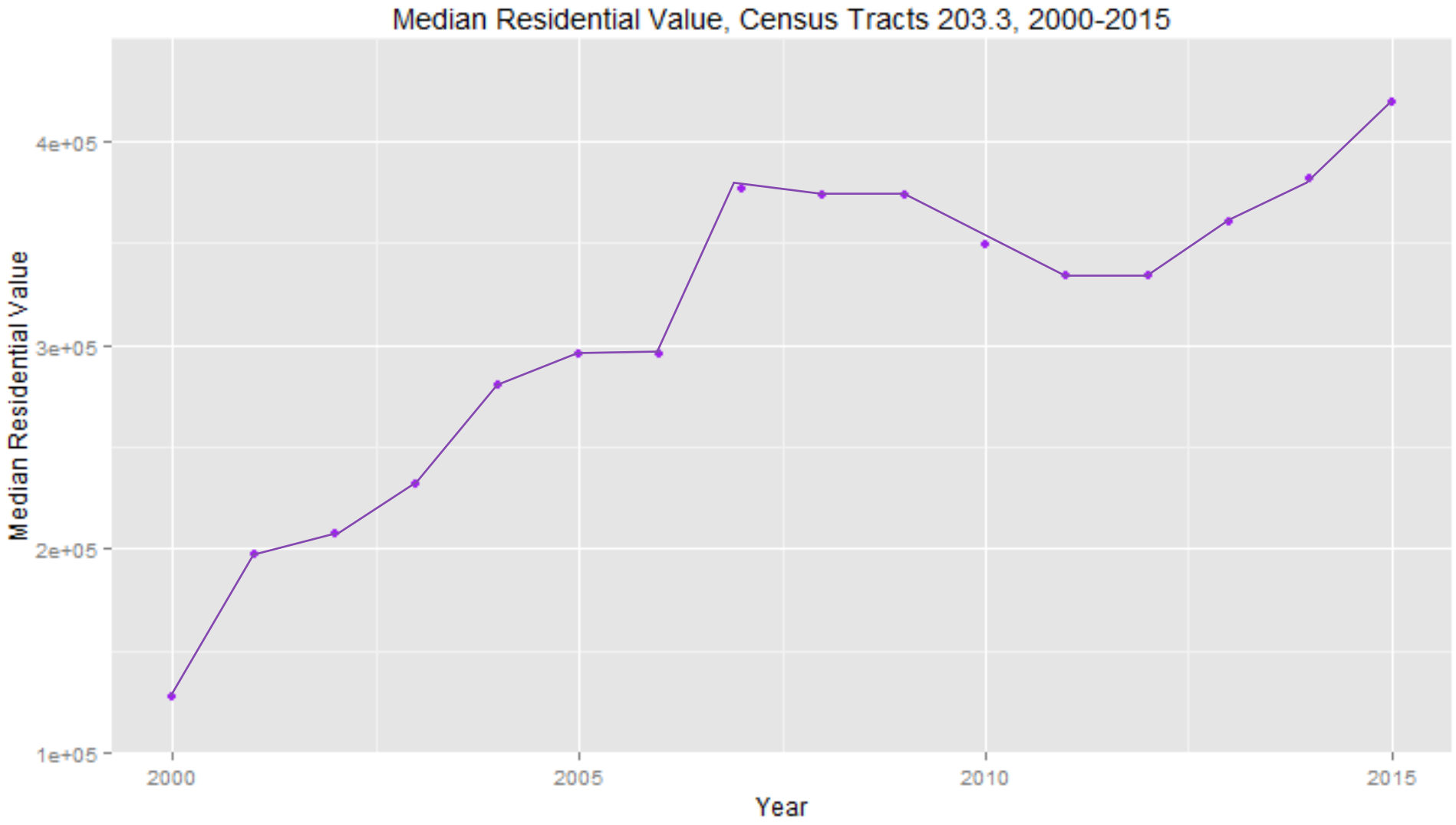
```
lucentral<- table(cenresinclude$CT_ID_10, cenresinclude$X2015.LU)
proptable<-prop.table(lucentral, 1)
proptable
```



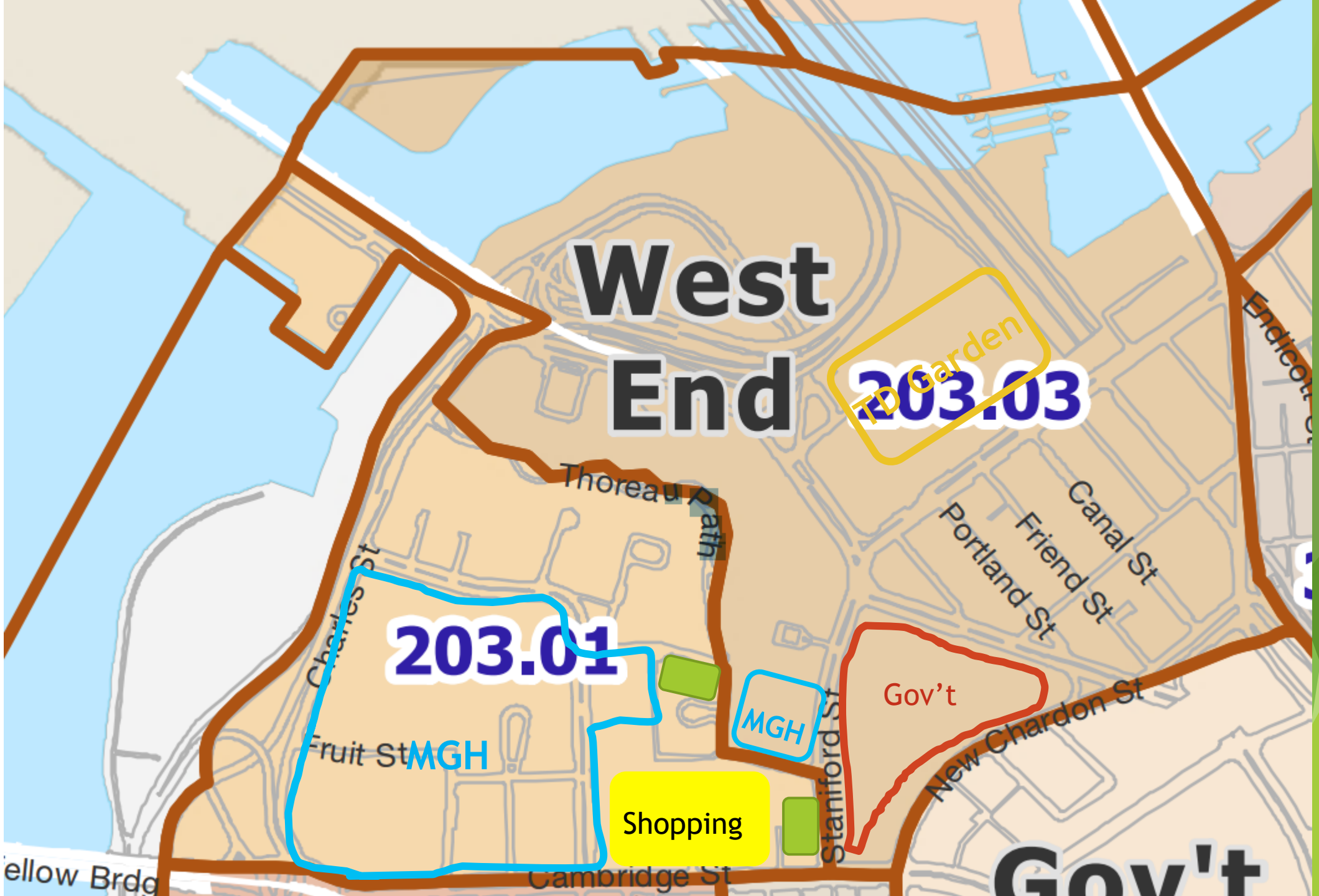

```
p<- ggplot(practice, aes(year, num2031))
p+geom_line(colour= "green")+labs(x="Year", y="Number of Condo Land Use Parcels", title= "Number of Condo Parcels by Year")
+coord_cartesian(ylim=c(2000, 4000))
```



ggplot()+geom_point(aes(x=year, y=med2031), colour="green")+labs(x="Year", y="Median Residential Value", title="Median Residential Value, Census Tracts 203.1, 2000-2015")

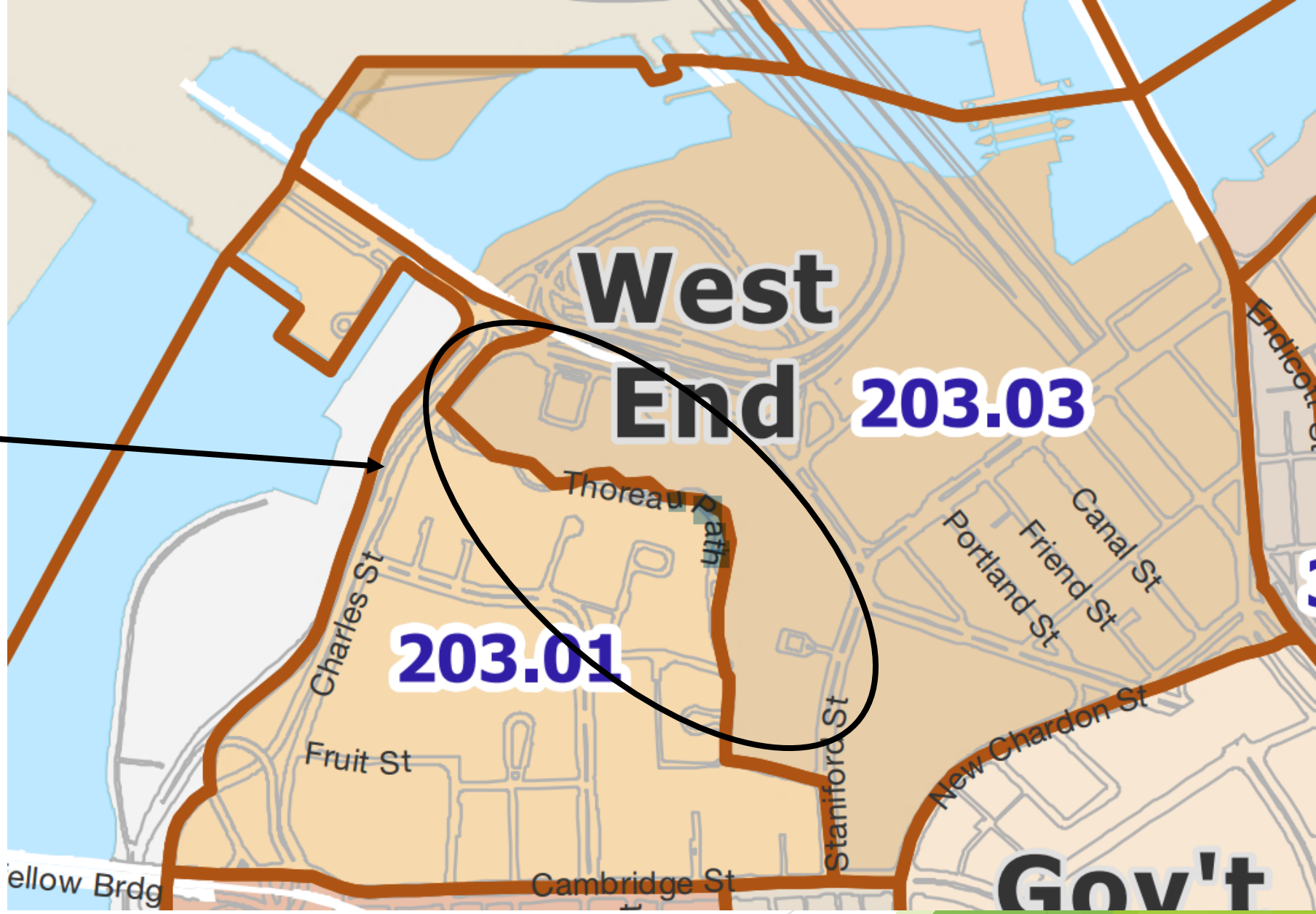



```
ggplot()+geom_point(aes(x=year, y=med2033), colour="purple")+labs(x="Year", y="Median
Residential Value", title="Median Residential Value, Census Tracts 203.3, 2000-2015")
+coord_cartesian(ylim=c(100000,450000))
```


West End
203.03
TD Garden
Thoreau Path
Charles St
Canal St
Friend St
Portland St
203.01
Fruit St
MGH
MGH
Shopping
Stanford St
Gov't
New Chardon St
Cambridge St
Gov't


If You
Lived Here...
...You'd Be
Home Now

The only place people really can (and do!) live.



Not many places to live…

- Clustered.
- Only a few complexes.
- In fact, how do they even have ~8,000 parcels?

Not very residential.

- Very busy roads (Storrow Drive, Connections to I-93, Traffic for Government Center, MGH (ambulances), North Station)
- Perhaps this explains the skewedness?
  - Not very appealing place to live for most, but for some the convenience may be worth paying the price.
  - Very limited number of residential parcels.

Conclusion:

- Number of parcels is not equal to physical space.
- Familiarity with a place gives the numbers a story and a feel.
- A final thought: What can population *density* tell us in places where there are lower percentages of residential areas?