

[illegible]

- ?????
- ?????
- ?????????
- ?????????
- ?????????



?????.png



-

```
[{
  item: '   ',
  count: 40,
  percent: 0.4
}, {
  item: '   ',
  count: 21,
  percent: 0.21
}, {
  item: '   ',
  count: 17,
  percent: 0.17
}, {
  item: '   ',
  count: 13,
  percent: 0.13
}, {
  item: '   ',
  count: 9,
  percent: 0.09
}]
```

- 

20, 20, 50, 20

• ? Geom

???? interval ?

??	???
??	count
??	???
????	item
????	?? stack
?? - ??	#ffffff
?? - ??	2

• ?? Legend

??	???
??	??
??	count
??	?
??	??
?????	-40

• ??? Coord

??	???
??	???



????????????????

[illegible]

?????.png



- | | | |
|--|--|--|
| | | |
|--|--|--|

```
[{
  item: 'III  ',
  count: 40,
  percent: 0.4
}, {
  item: 'III  ',
  count: 21,
  percent: 0.21
}, {
  item: 'III  ',
  count: 17,
  percent: 0.17
}, {
  item: 'III  ',
  count: 13,
  percent: 0.13
}, {
  item: 'III  ',
  count: 9,
```

percent: 0.09

}]

• 

20, 20, 50, 20

• ? Geom

???? interval ?

??	???
??	count
??	???
????	item
????	?? stack
?? - ??	#ffffff
?? - ??	2

• ?? Legend

??	???
??	??
??	count
??	?
??	??
?????	-40

• ??? Coord

??	???
----	-----

??	???
?????	0.5
??	0.9

[illegible]

??????.png



- | | | |
|--|--|--|
| | | |
|--|--|--|

```
[{
  year: '2001',
  population: 41.8
}, {
  year: '2002',
  population: 38
}, {
  year: '2003',
  population: 33.7
}, {
  year: '2004',
  population: 30.7
}, {
  year: '2005',
  population: 25.8
}, {
  year: '2006',
  population: 31.7
}]
```

```

}, {
  year: '2007',
  population: 33
}, {
  year: '2008',
  population: 46
}, {
  year: '2009',
  population: 38.3
}, {
  year: '2010',
  population: 28
}, {
  year: '2011',
  population: 42.5
}, {
  year: '2012',
  population: 30.3
}]

```

- 

60, 40, 60, 50

- ??? Axis

population? Y? ?

??	???
??	population
??	??

- ? Geom

???? interval ?

??	???
??	year*population
??	???
?? - ??	#####
?? - ??	2

• ??? Coord

??	???
??	????



?????????.png



-

```
[{
  year: '2001',
  population: 41.8
}, {
  year: '2002',
  population: 38
}, {
  year: '2003',
  population: 33.7
}, {
  year: '2004',
  population: 30.7
}, {
  year: '2005',
  population: 25.8
}, {
  year: '2006',
  population: 31.7
}, {
  year: '2007',
  population: 33
}, {
  year: '2008',
```

```

    population: 46
  }, {
    year: '2009',
    population: 38.3
  }, {
    year: '2010',
    population: 28
  }, {
    year: '2011',
    population: 42.5
  }, {
    year: '2012',
    population: 30.3
  }
]
```

- 

0

- ??? Axis

population? Y? ?

??	???
??	population
??	??

year? X? ?

??	???
??	year
??	??

- ? Geom

???? interval ?

??	???
??	year*population
??	???
????	year
?? - ??	#ffffff
?? - ??	2

• ?? Legend

??	???
??	??
??	year
??	?
??	??
?????	-160
?????	-160

• ??? Coord

??	???
??	????



?????????.png



-

```
[{
  year: '2001',
  population: 41.8
}, {
  year: '2002',
  population: 38
}, {
  year: '2003',
  population: 33.7
}, {
  year: '2004',
  population: 30.7
}, {
  year: '2005',
  population: 25.8
}, {
  year: '2006',
  population: 31.7
}, {
  year: '2007',
  population: 33
}, {
  year: '2008',
```

```

    population: 46
  }, {
    year: '2009',
    population: 38.3
  }, {
    year: '2010',
    population: 28
  }, {
    year: '2011',
    population: 42.5
  }, {
    year: '2012',
    population: 30.3
  }
]
```

- 

0

- ??? Axis

population? Y? ?

??	???
??	population
??	??

year? X? ?

??	???
??	year
??	??

- ? Geom

???? interval ?

??	???
??	year*population
??	???
????	year
?? - ??	#ffffff
?? - ??	2

• ?? Legend

??	???
??	??
??	year
??	?
??	??
?????	-160
?????	-160

• ??? Coord

??	???
??	????
?????	0.25
??	1