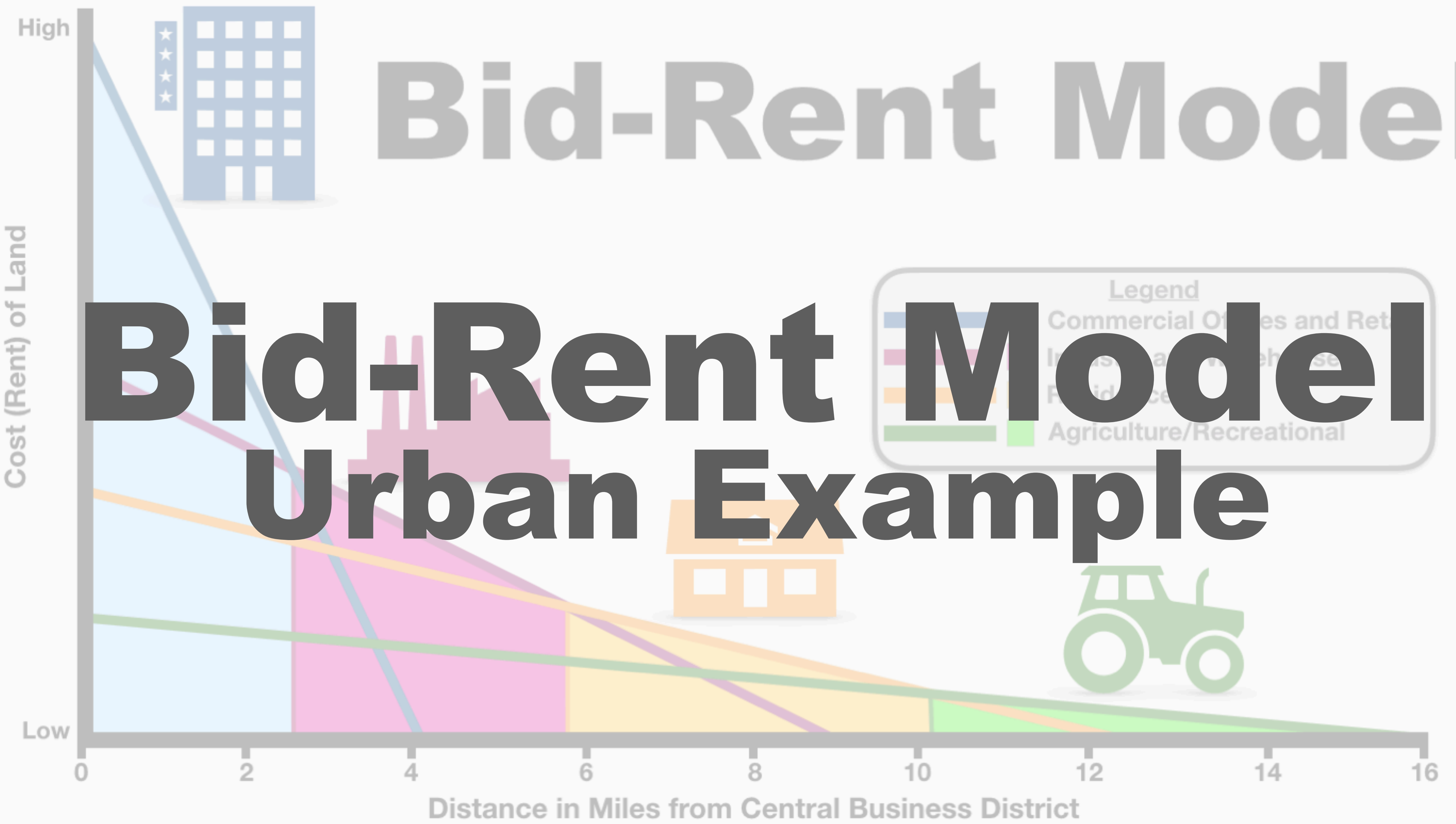


Bid-Rent Model

Bid-Rent Model

Urban Example



Bid-Rent Model

Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model

Can you explain the model?

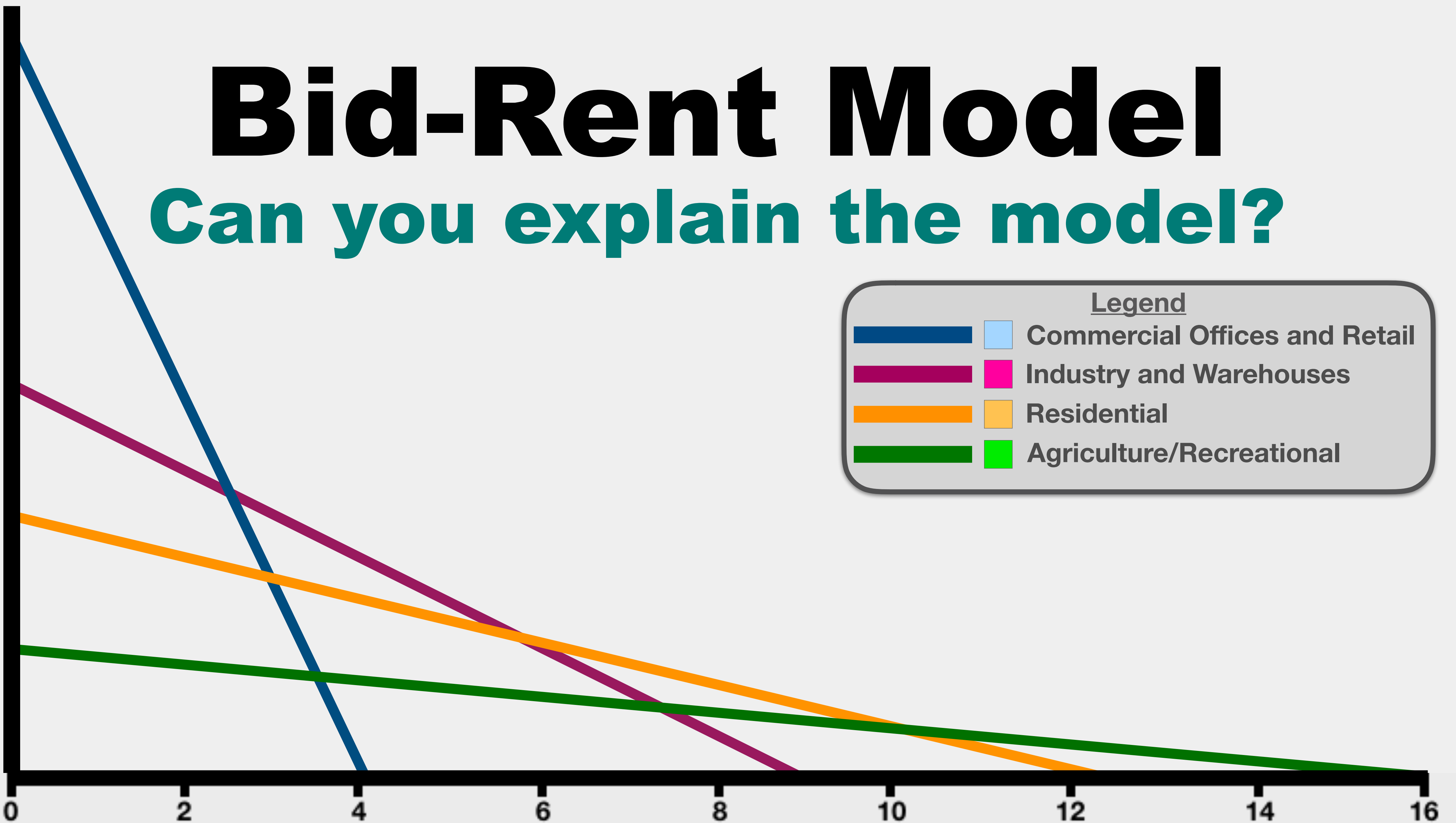
Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model

Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

Legend



Bid-Rent Model

Cost (Rent) of Land

High

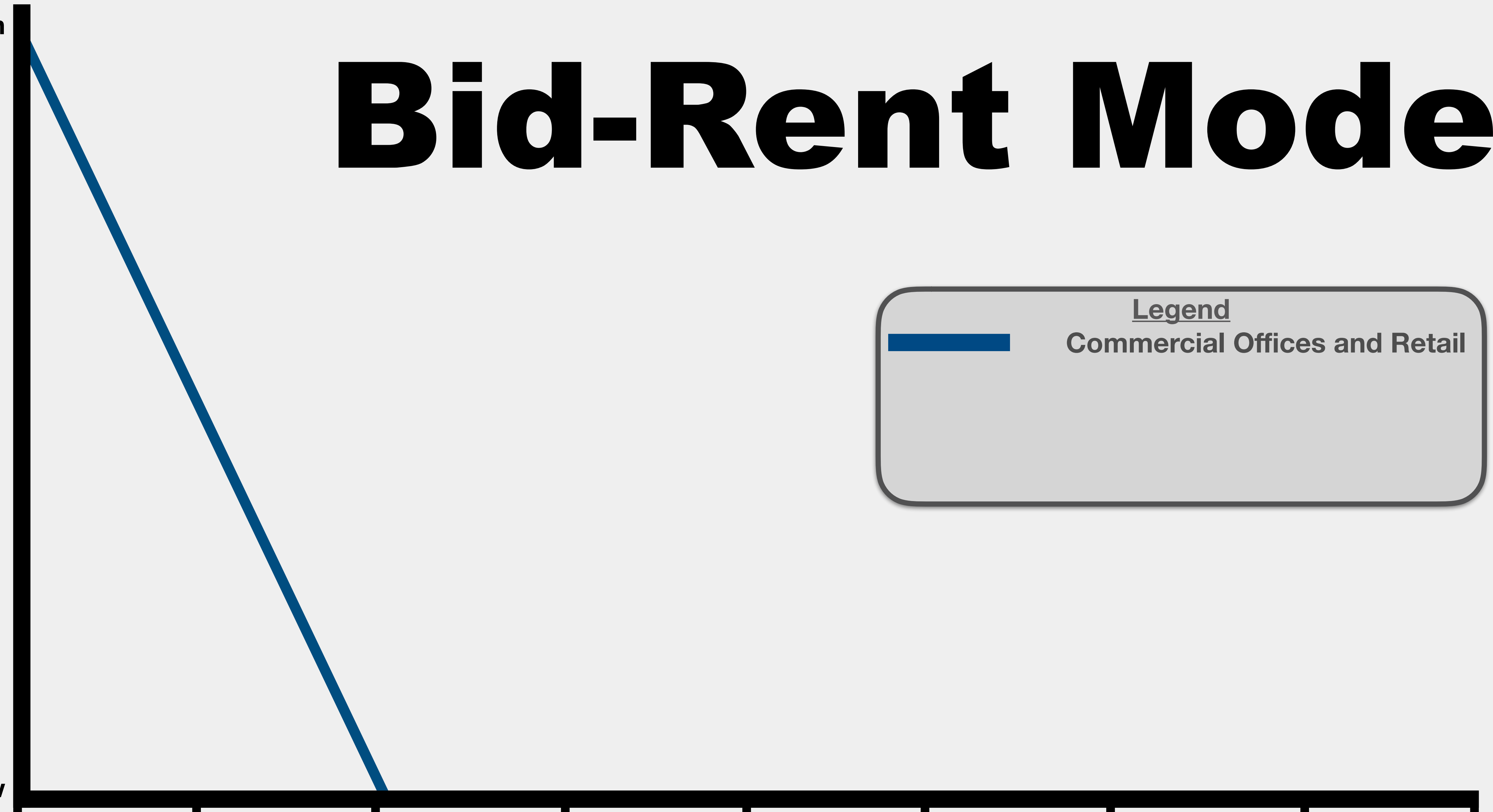
Low

Legend

Commercial Offices and Retail

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



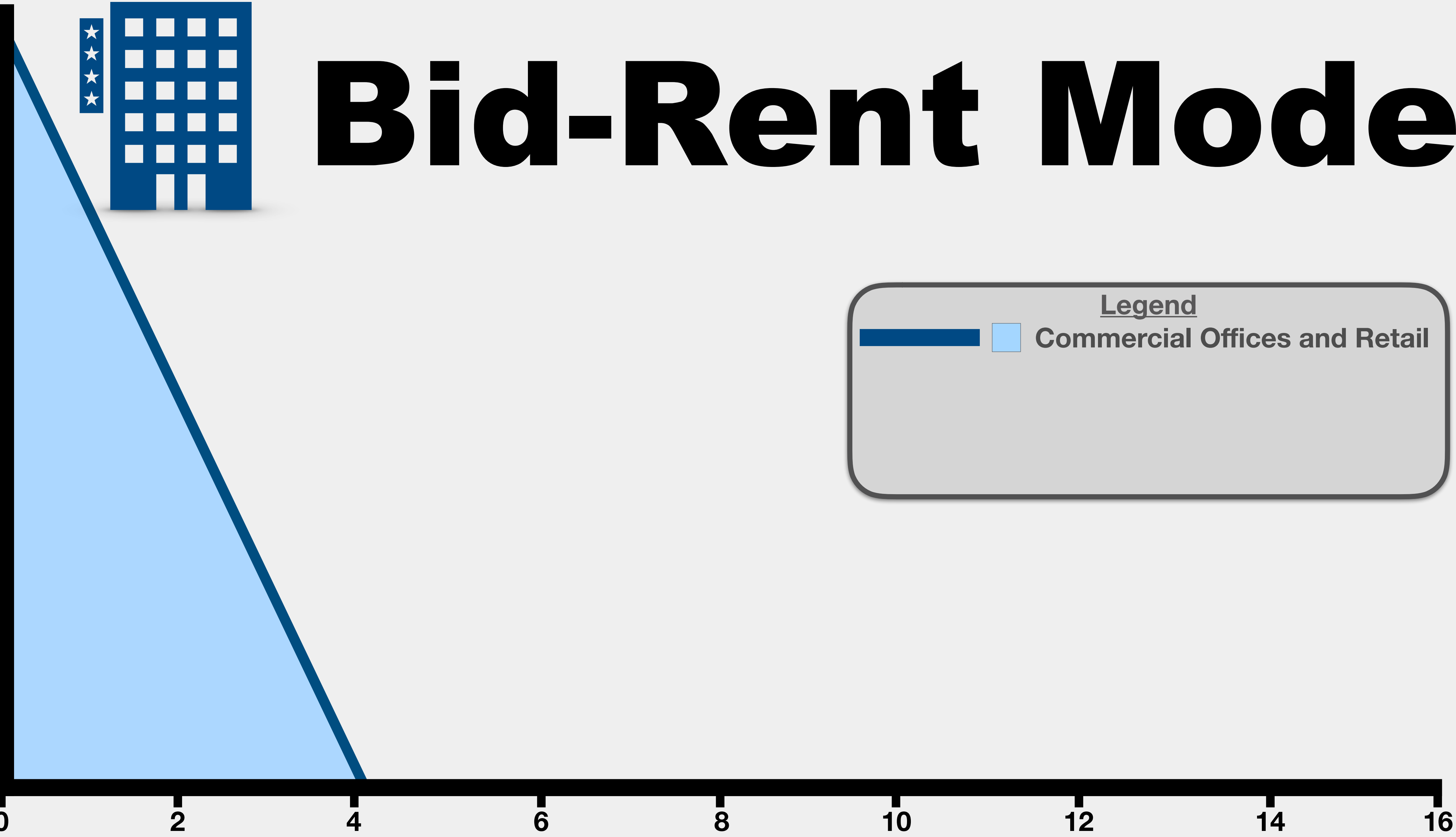
Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

Legend

  Commercial Offices and Retail





Bid-Rent Model

Cost (Rent) of Land

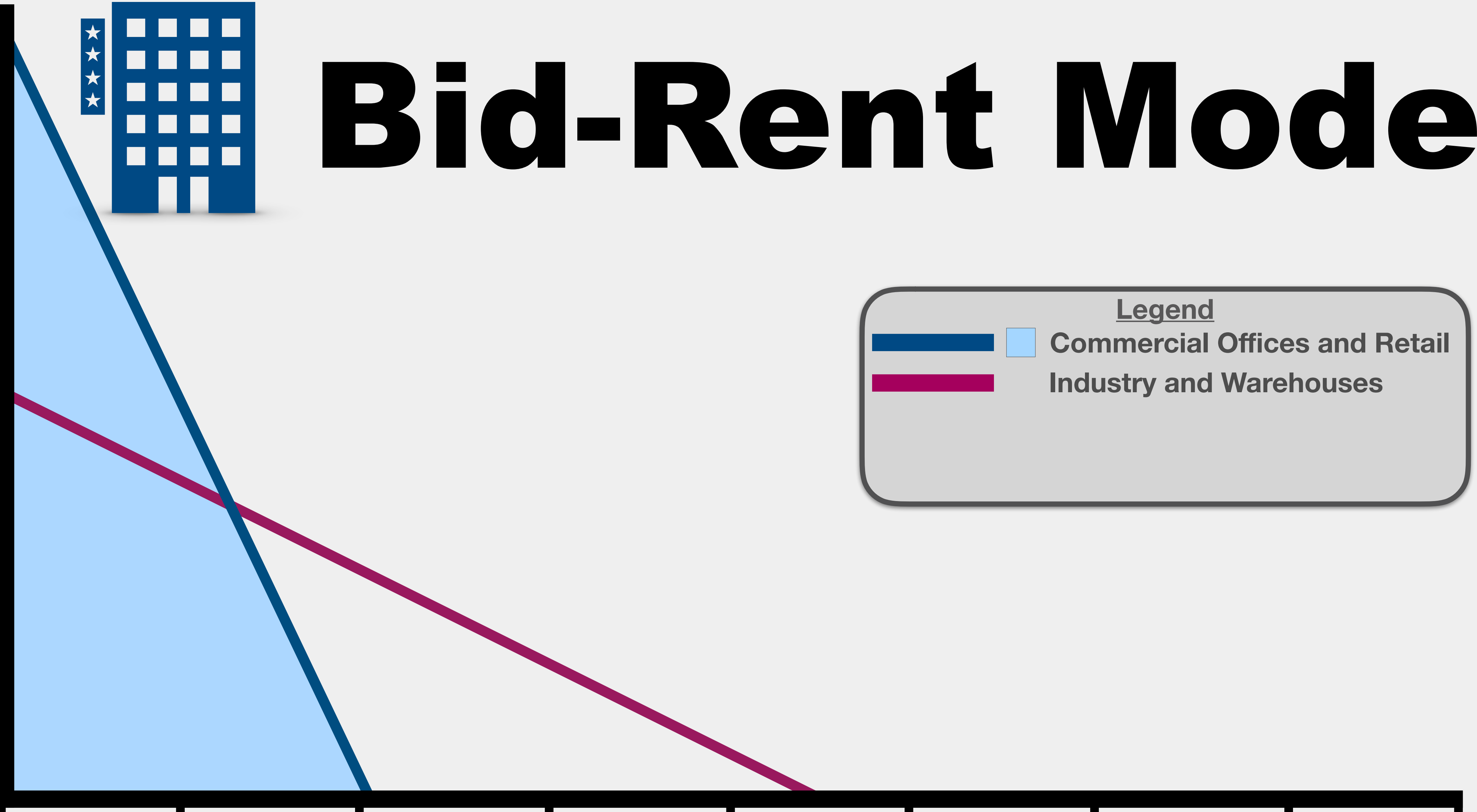
High

Low

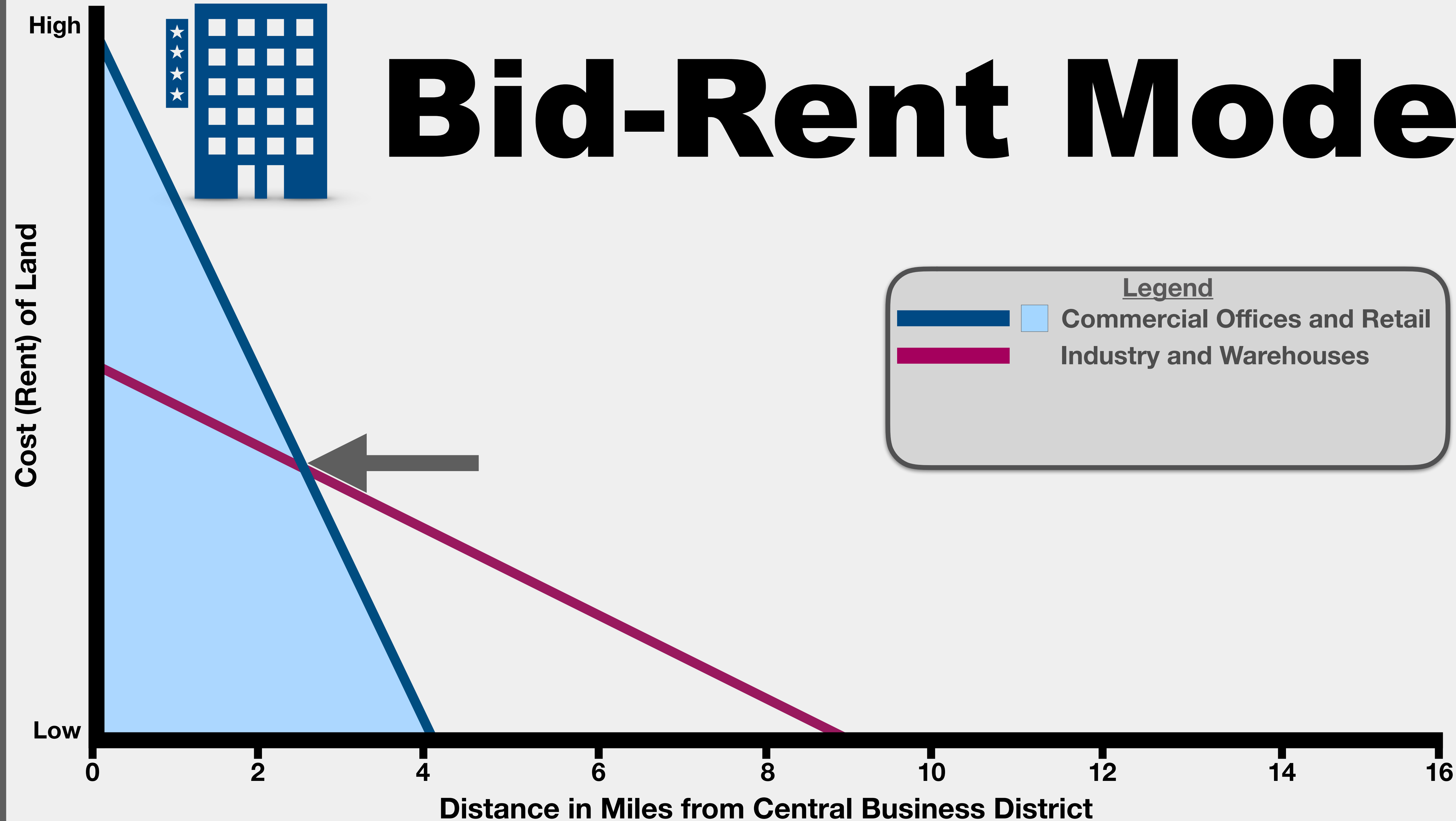


0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Legend

- Commercial Offices and Retail
- Industry and Warehouses



Bid-Rent Model

Cost (Rent) of Land

High

Low

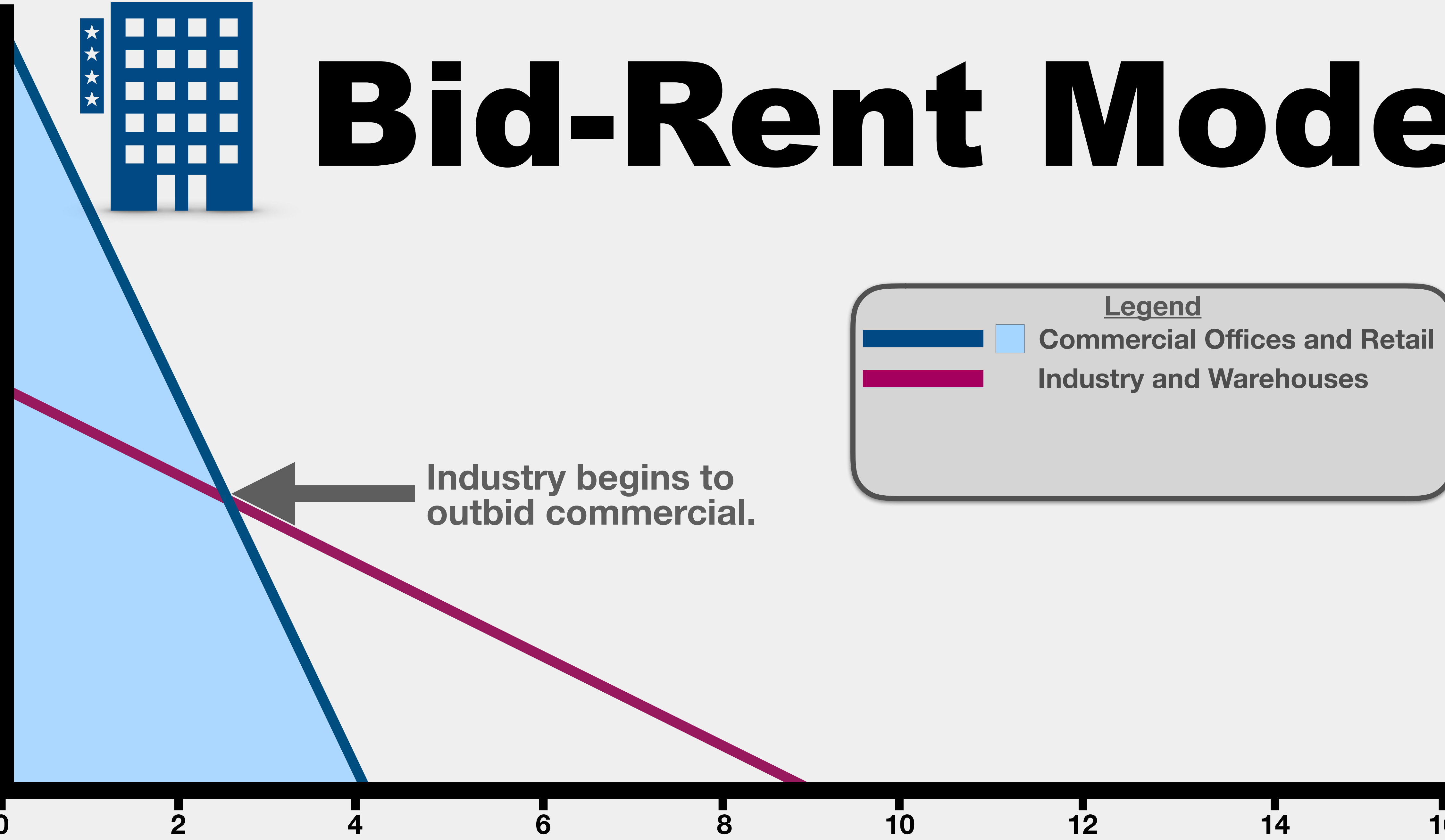
0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

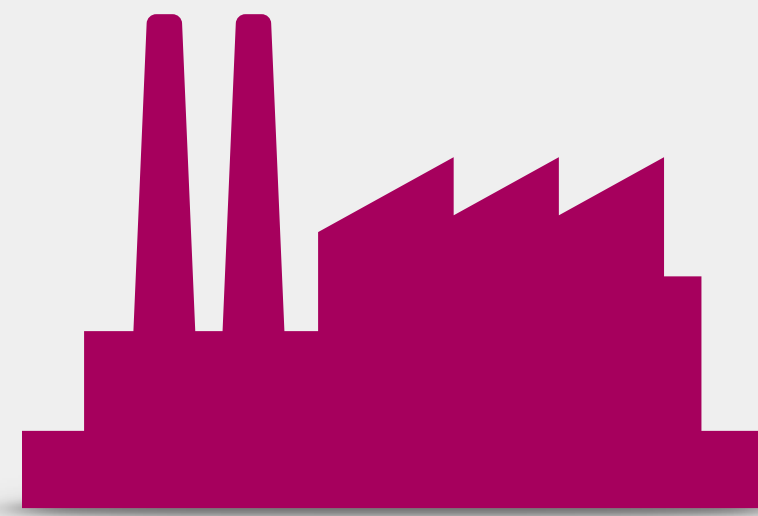
Legend

-  Commercial Offices and Retail
-  Industry and Warehouses

Industry begins to outbid commercial.



Bid-Rent Model



Cost (Rent) of Land

High

Low

0

2

4

6

8

10

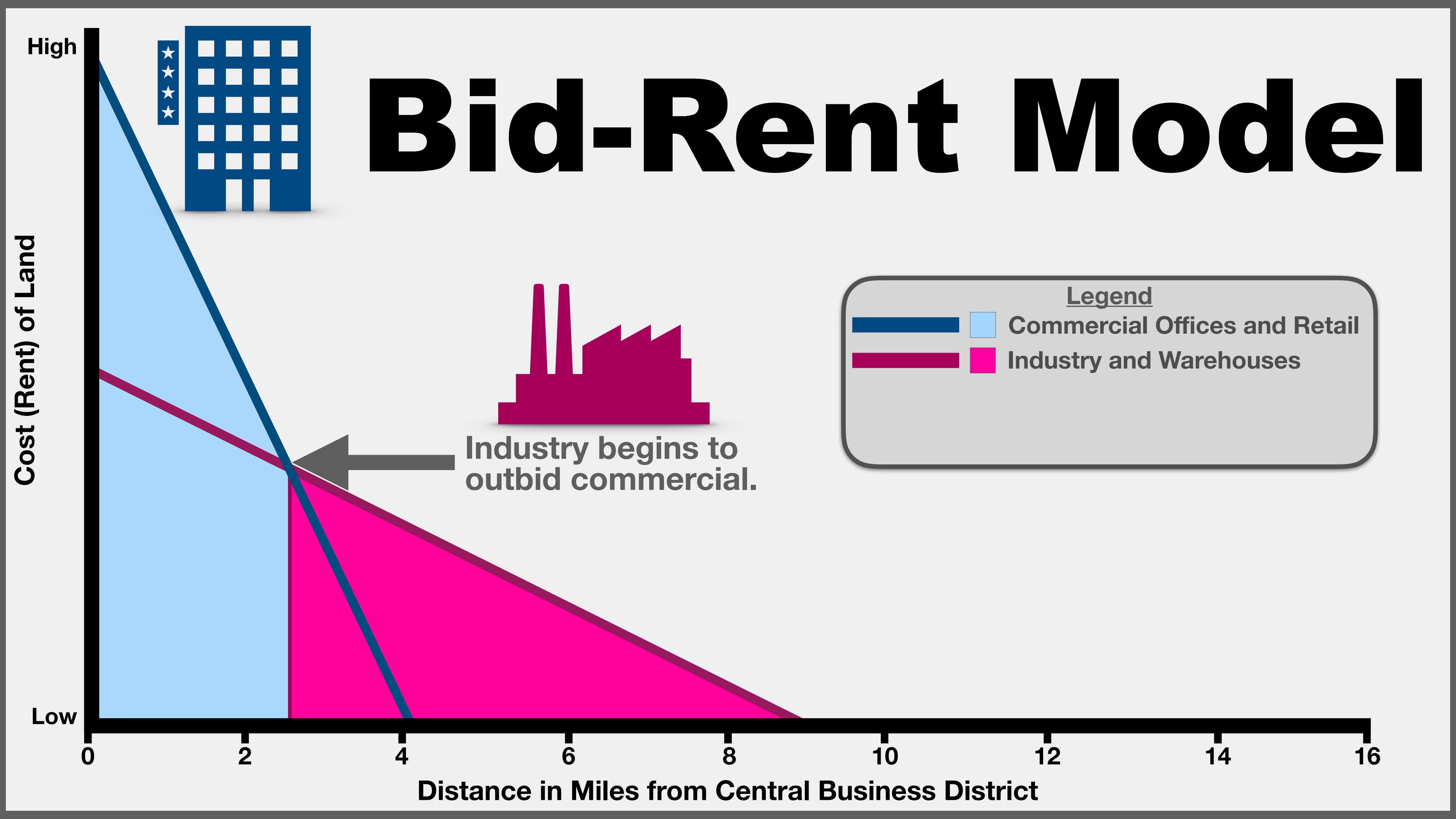
12

14

16

Industry begins to outbid commercial.

Distance in Miles from Central Business District





Bid-Rent Model

Cost (Rent) of Land

High

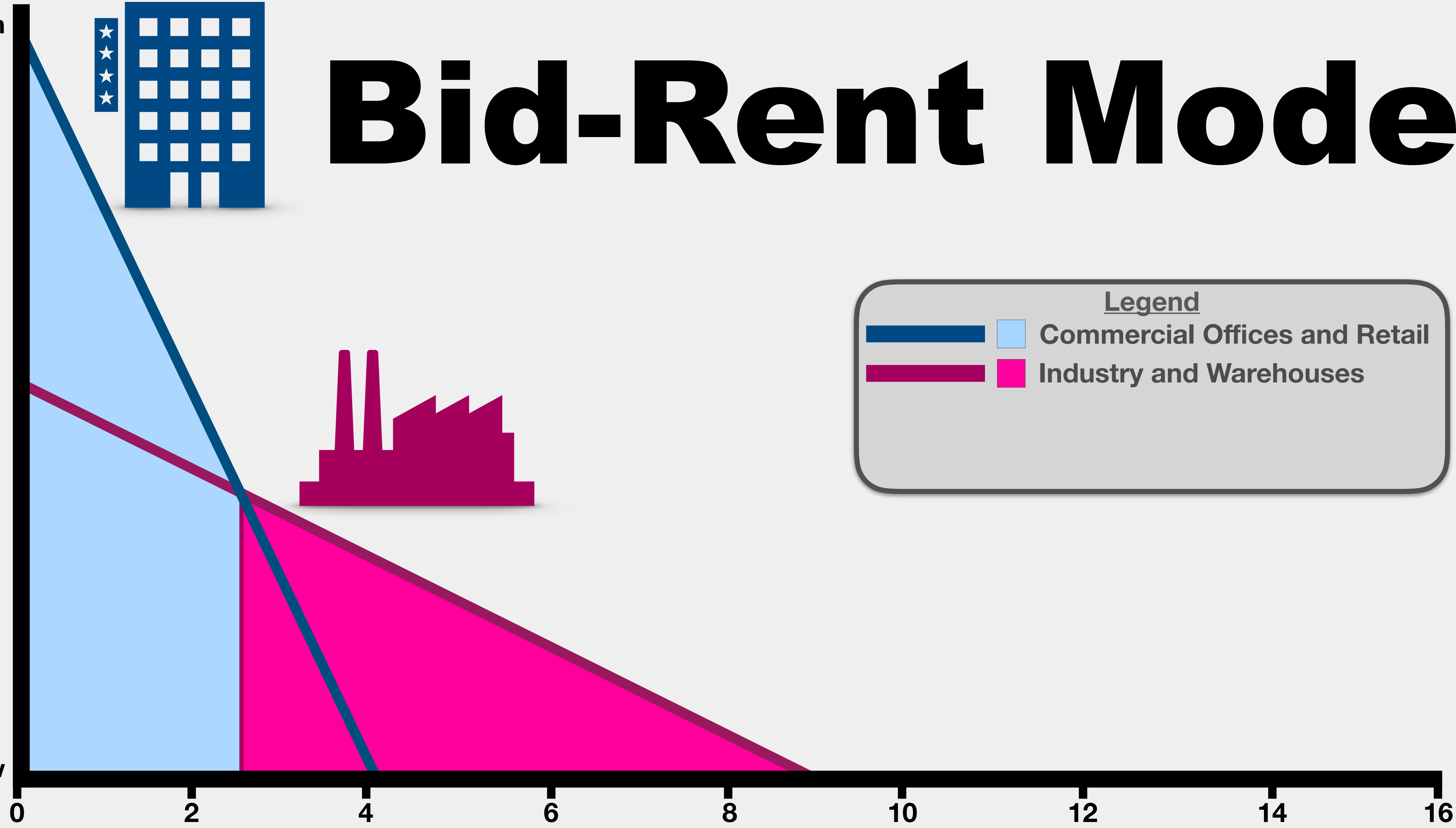
Low

Legend

-   Commercial Offices and Retail
-   Industry and Warehouses

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District





Bid-Rent Model

Cost (Rent) of Land

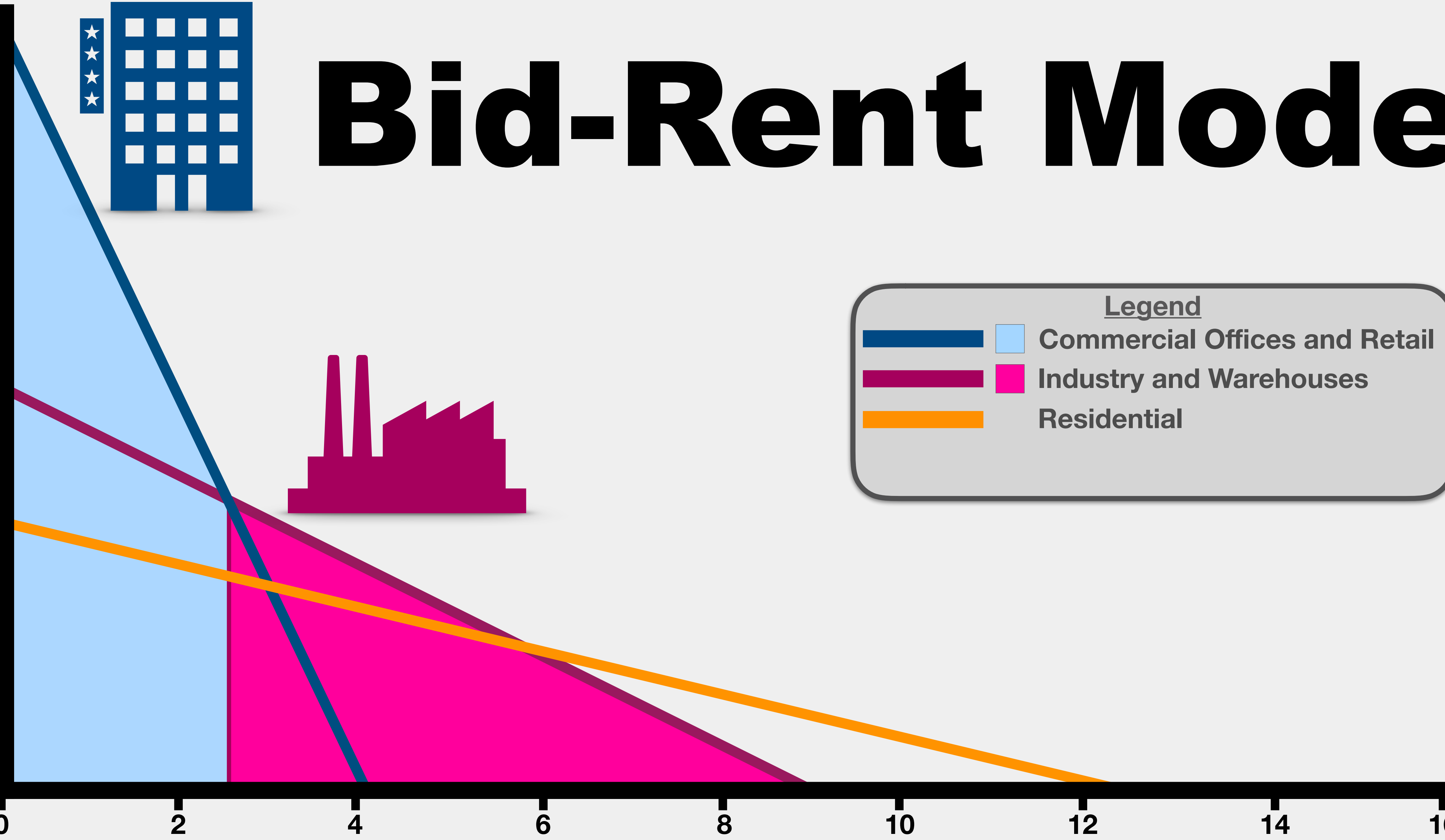
High

Low



0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District





Bid-Rent Model

Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential

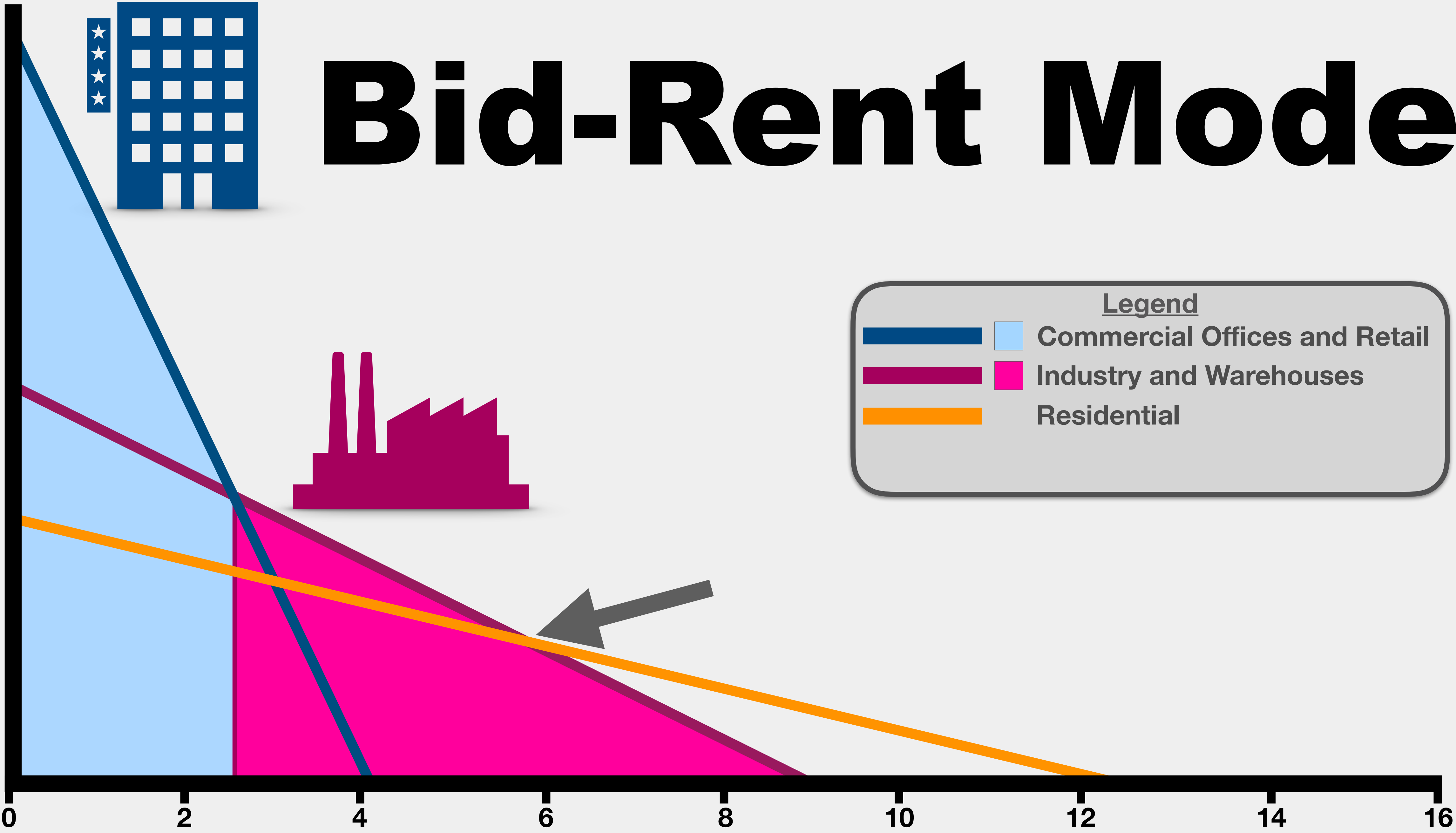
Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

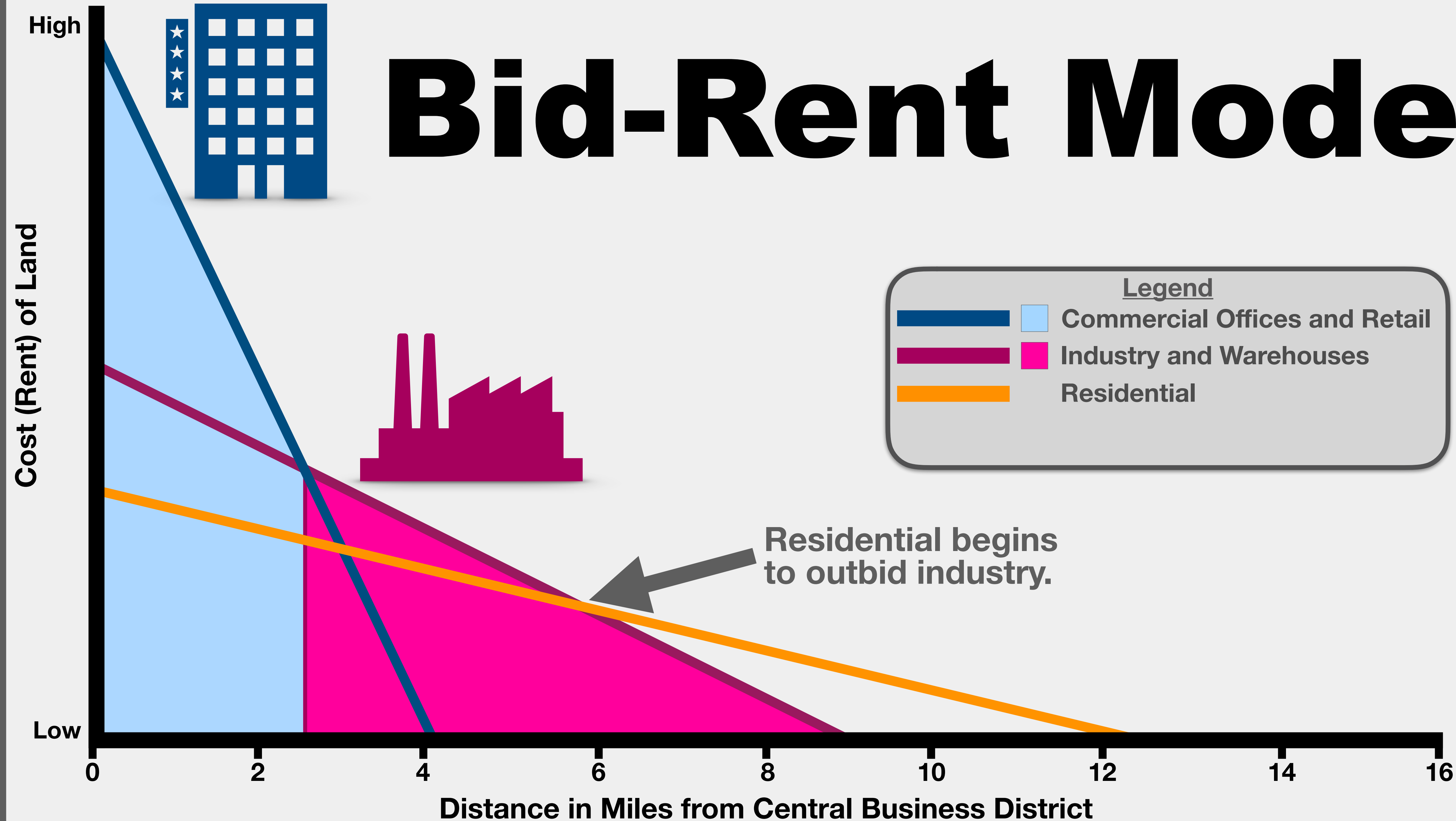


Bid-Rent Model



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential



Bid-Rent Model



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential

Cost (Rent) of Land

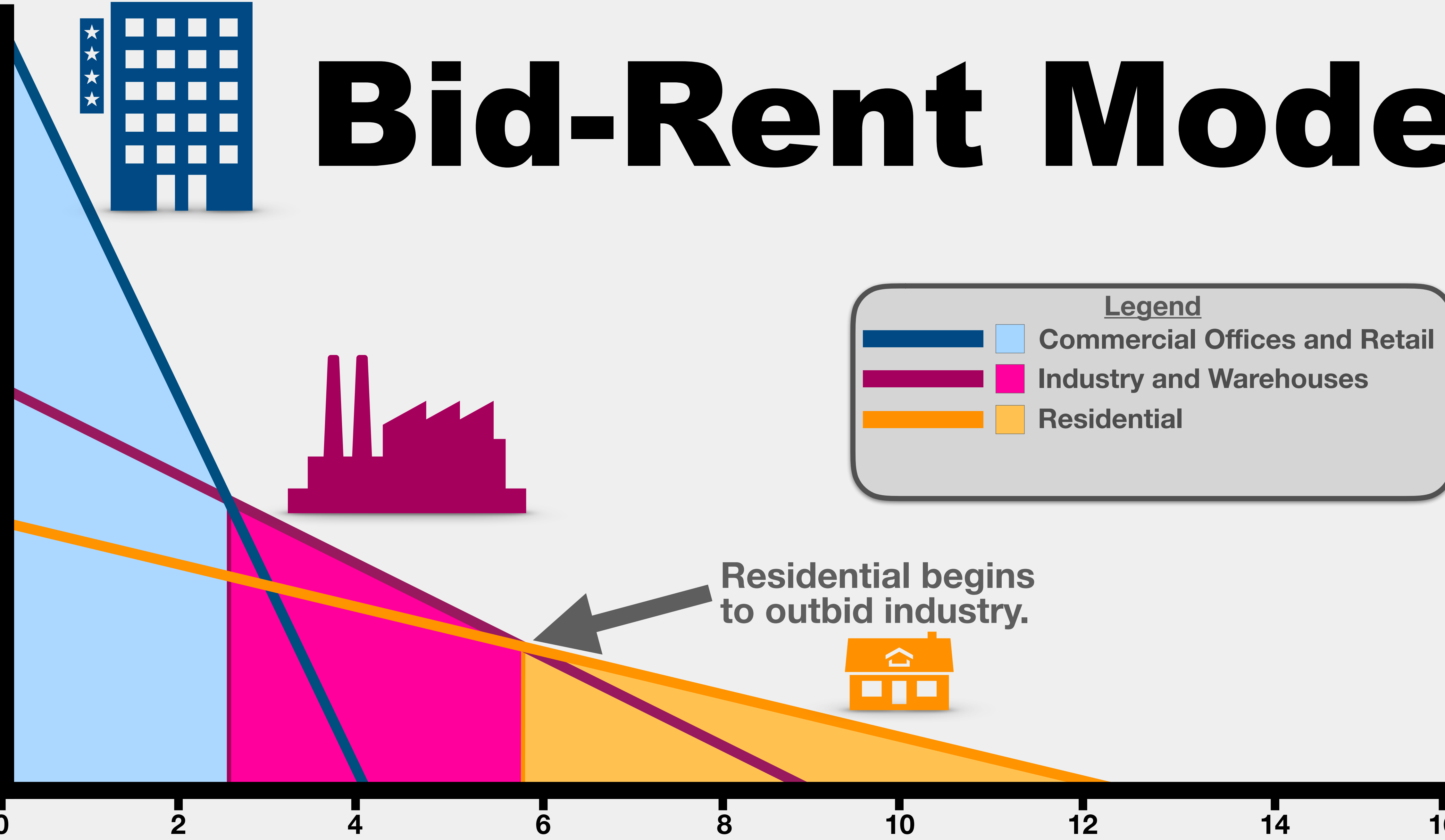
High

Low

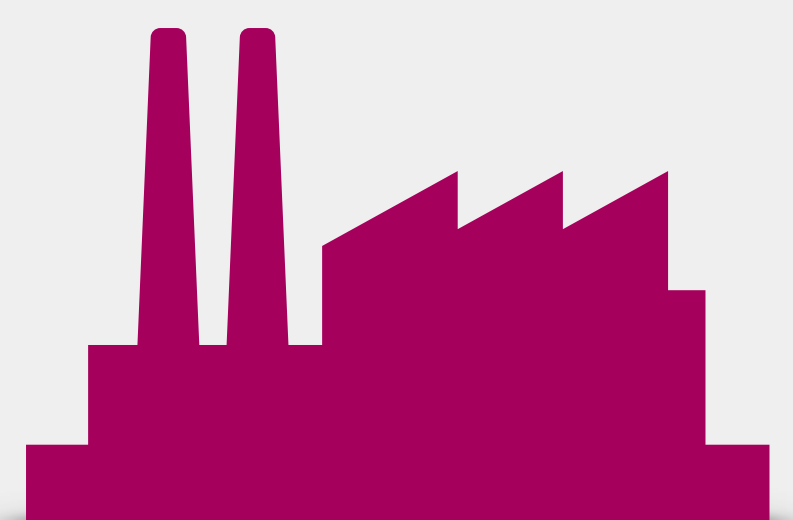
0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

Residential begins to outbid industry.



Bid-Rent Model



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential

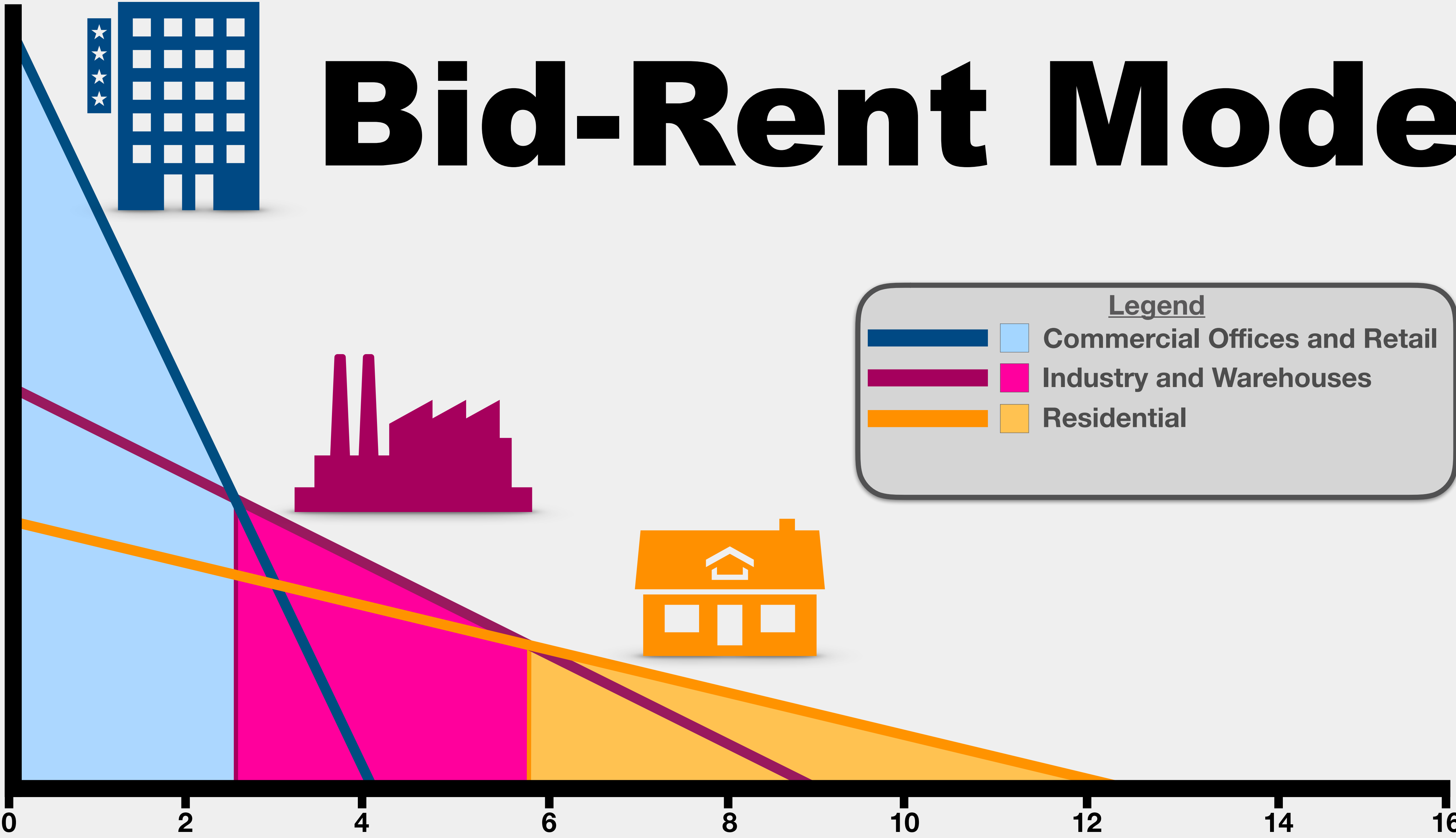
Cost (Rent) of Land

High

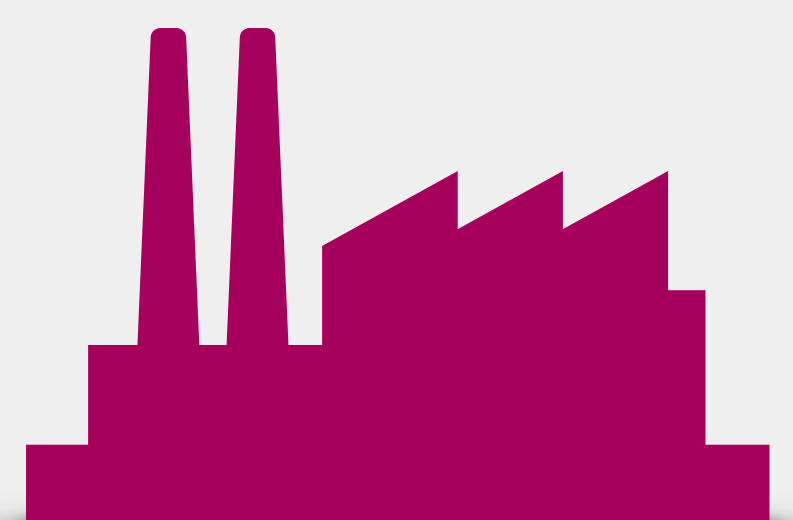
Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

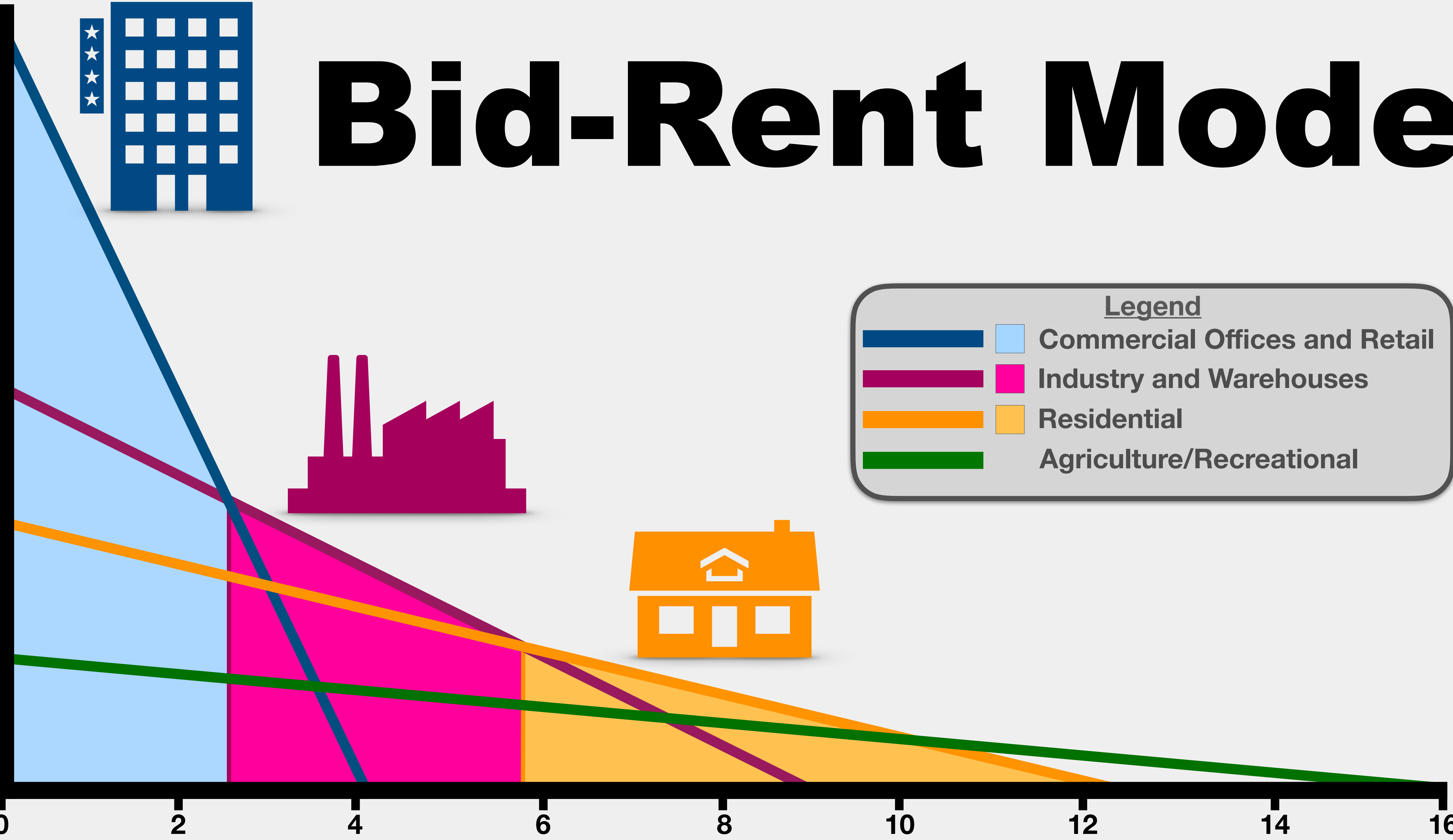
Cost (Rent) of Land

High

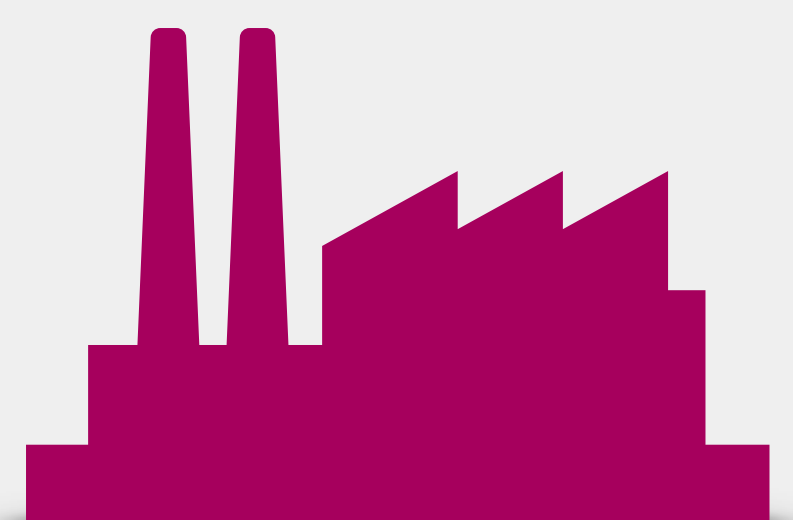
Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

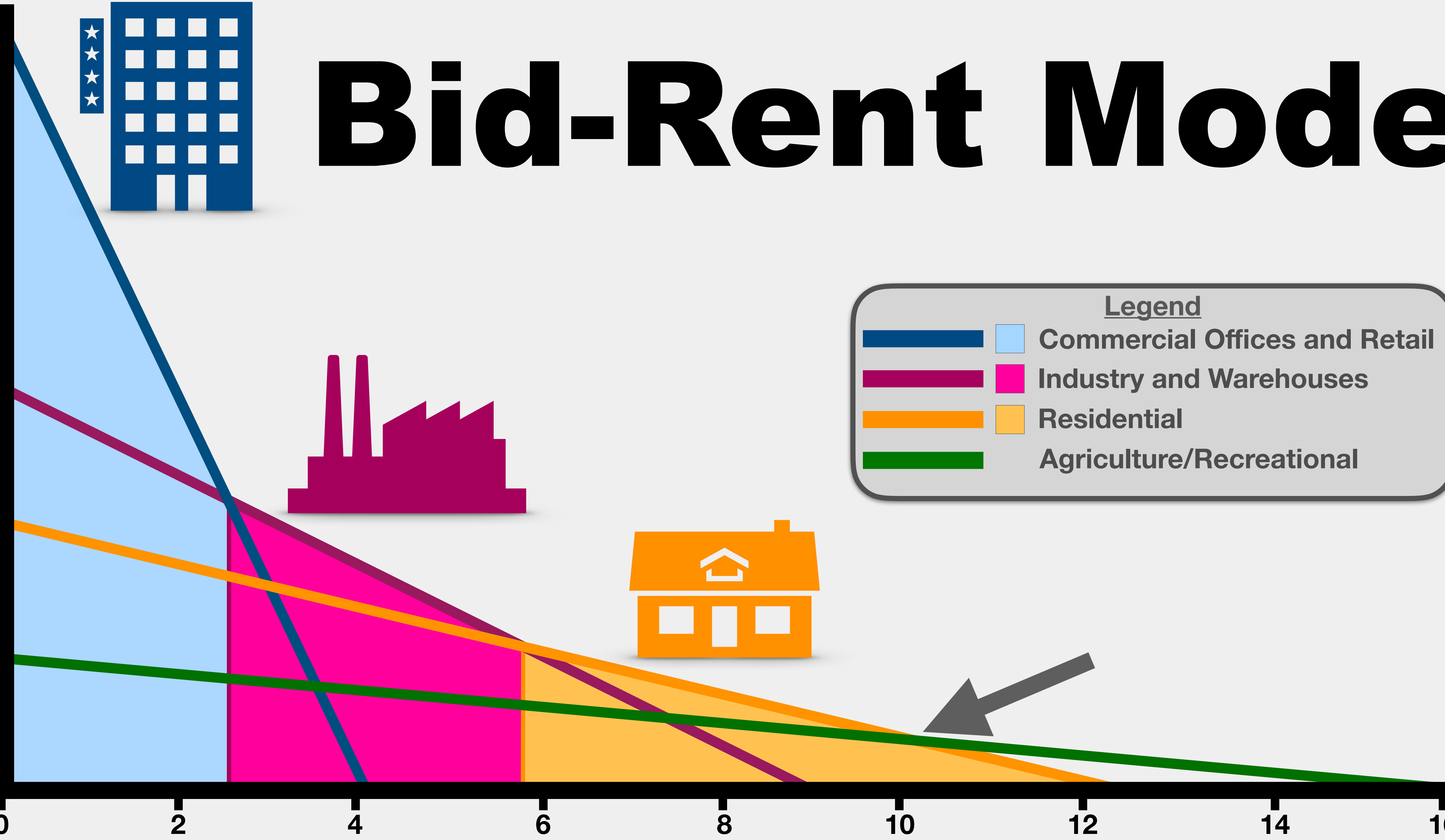
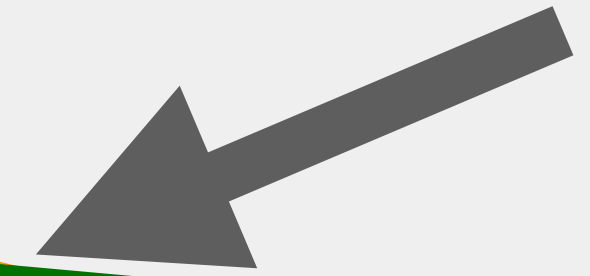
Cost (Rent) of Land

High

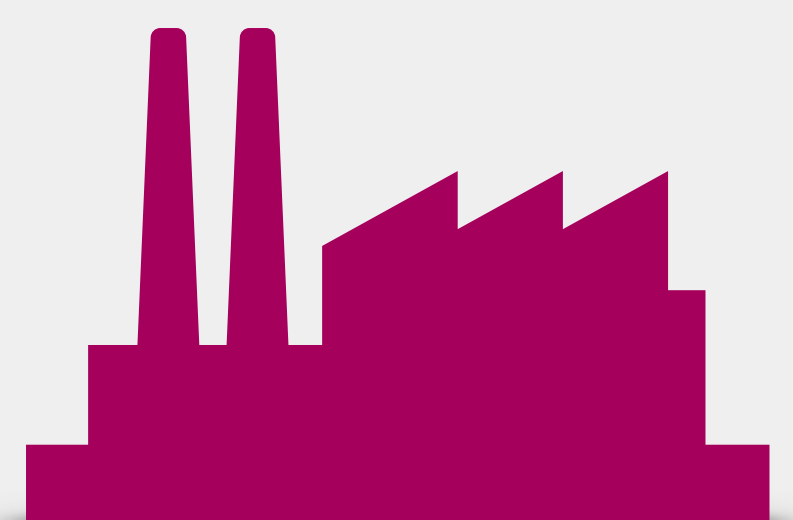
Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

Cost (Rent) of Land

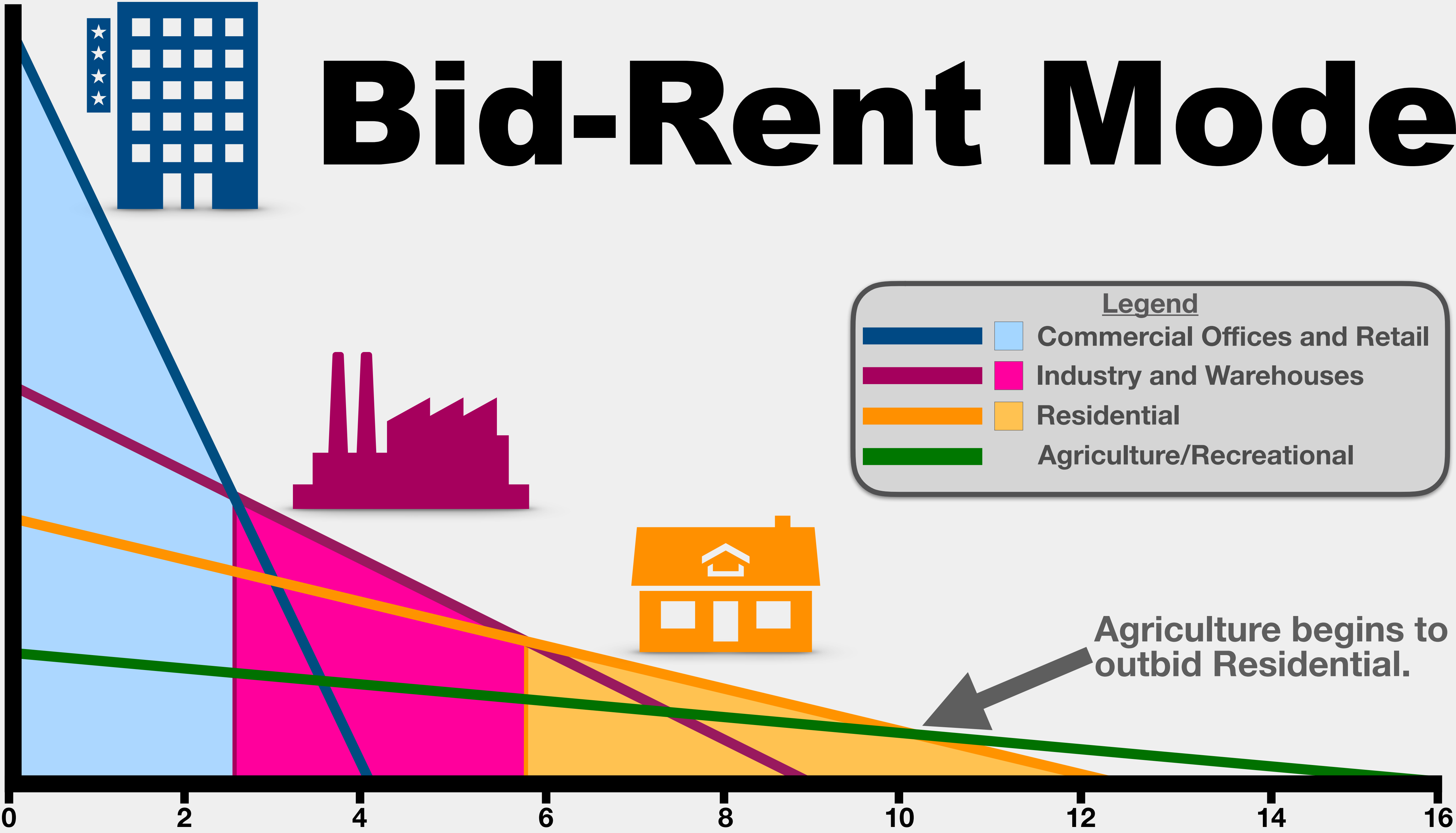
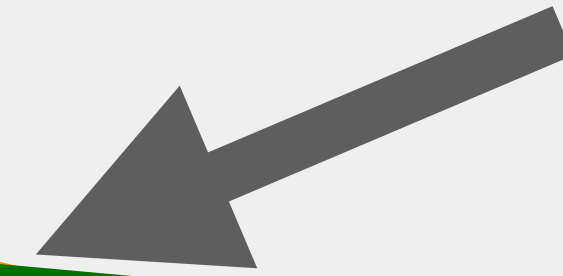
High

Low

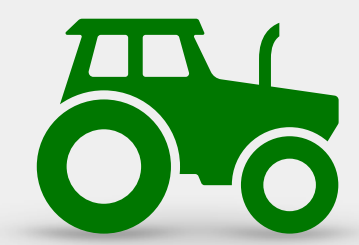
0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

Agriculture begins to outbid Residential.



Bid-Rent Model



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

Cost (Rent) of Land

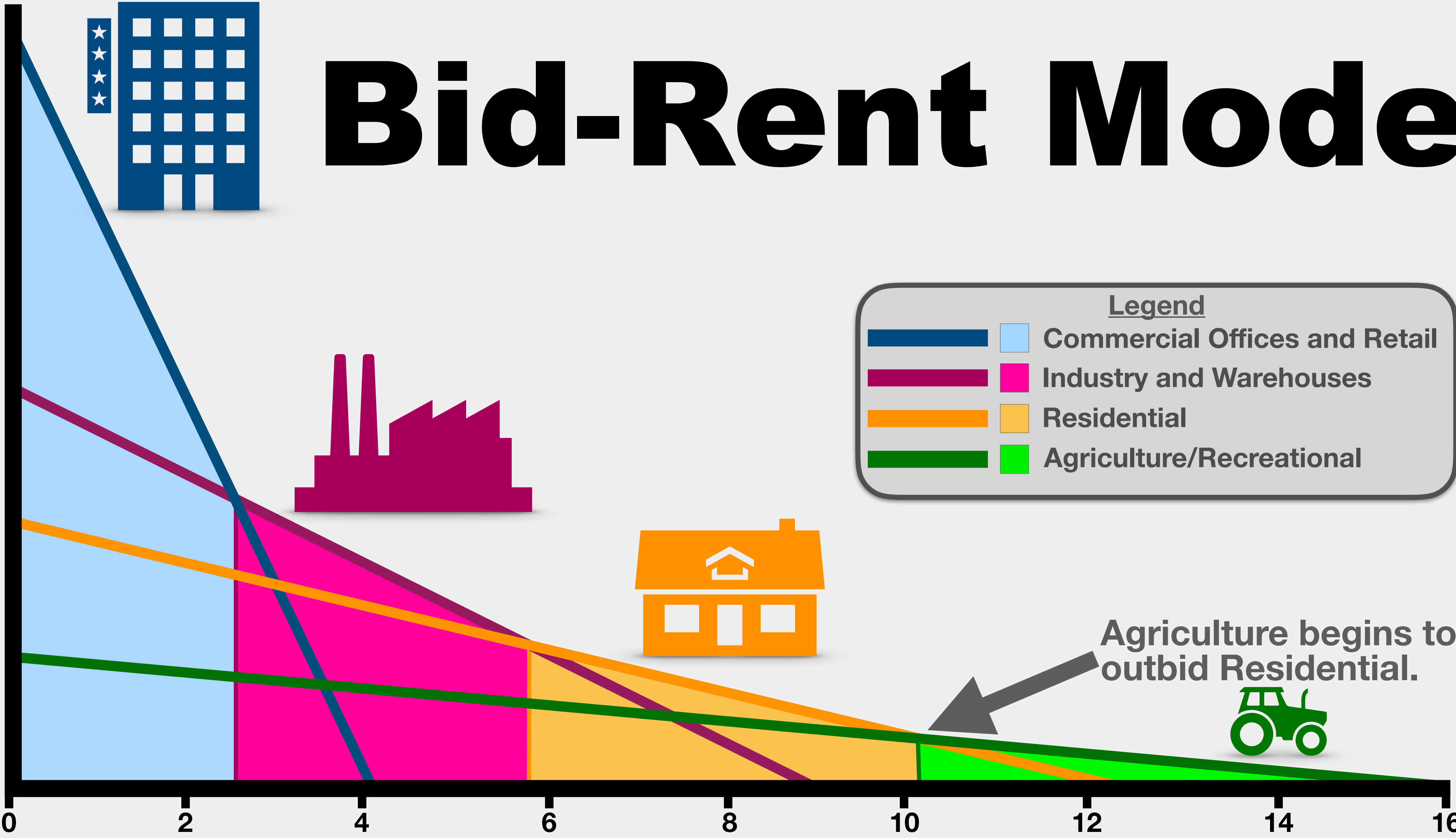
High

Low

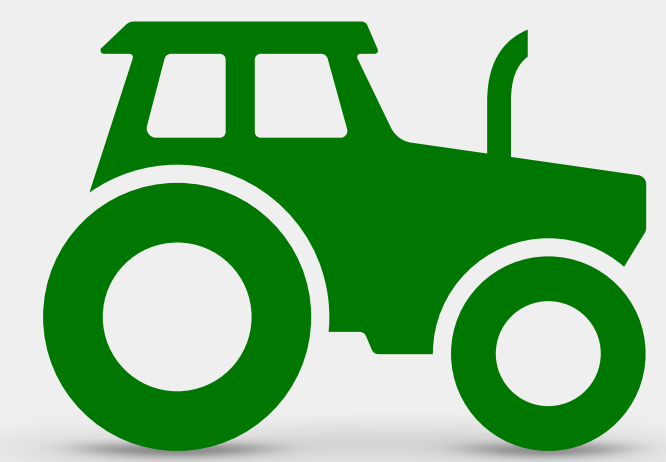
0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

Agriculture begins to outbid Residential.



Bid-Rent Model



Legend

-  Commercial Offices and Retail
-  Industry and Warehouses
-  Residential
-  Agriculture/Recreational

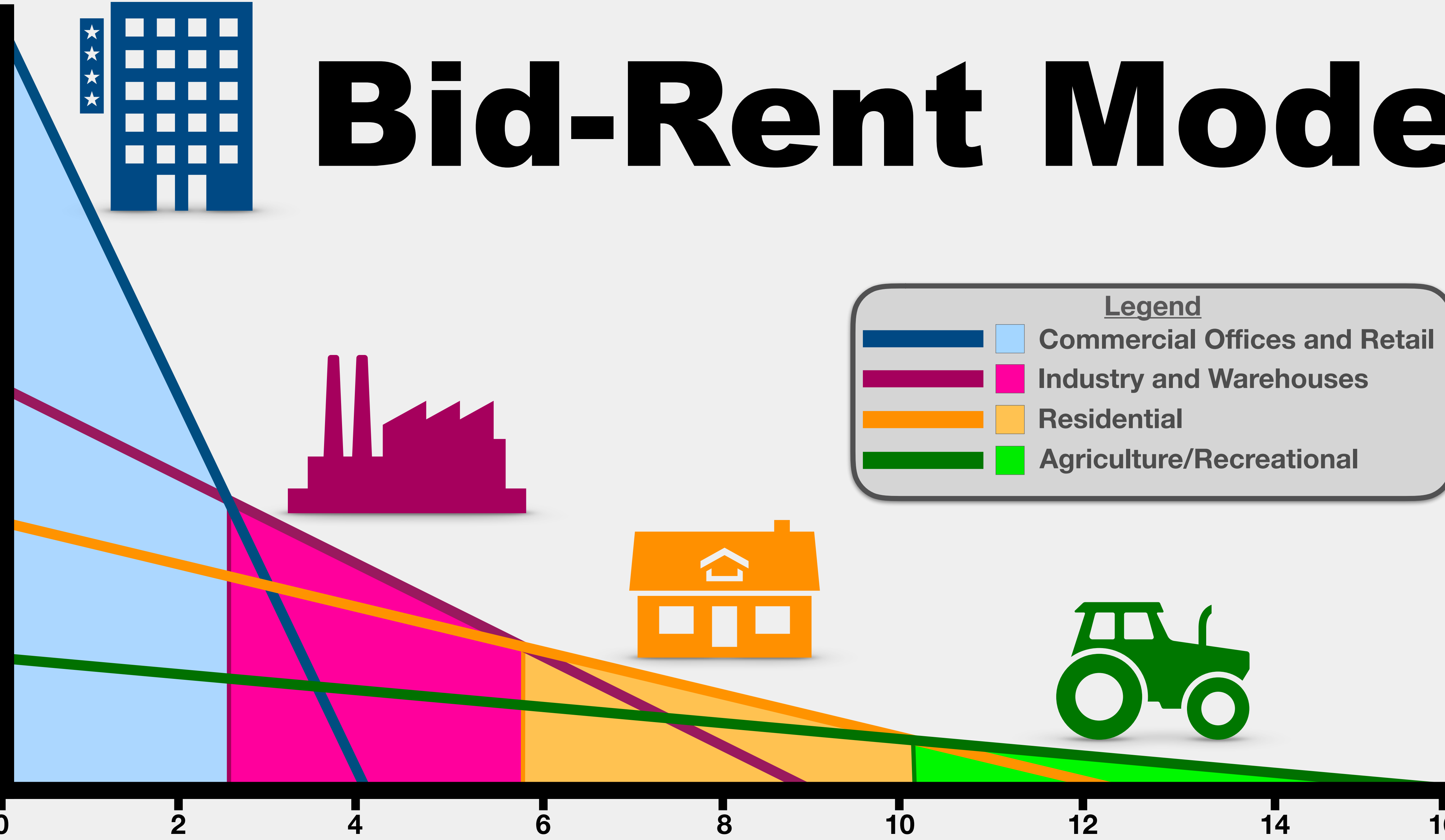
Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model

Cost (Rent) of Land

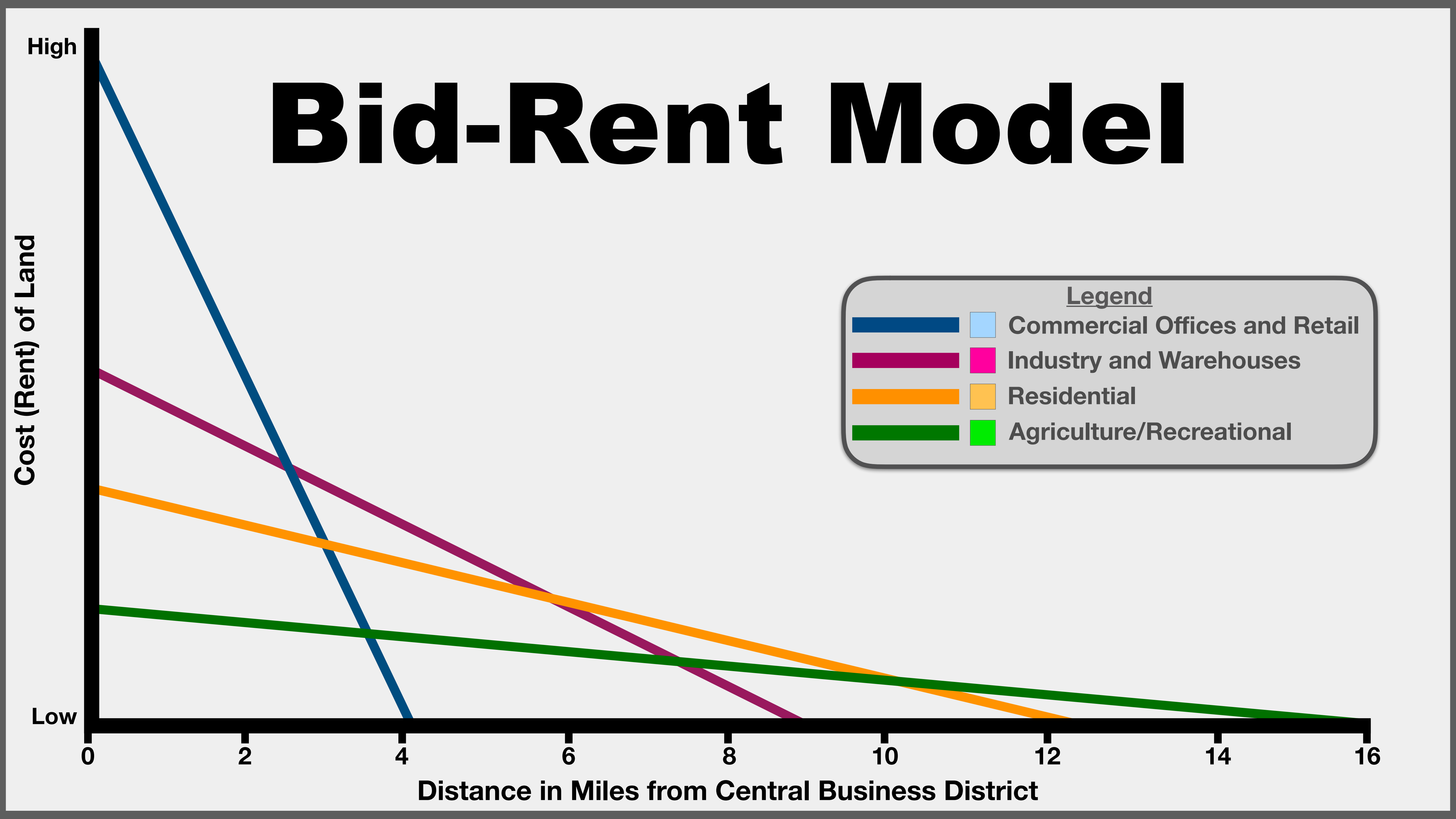
High

Low



0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model

How do you read the model?

Cost (Rent) of Land

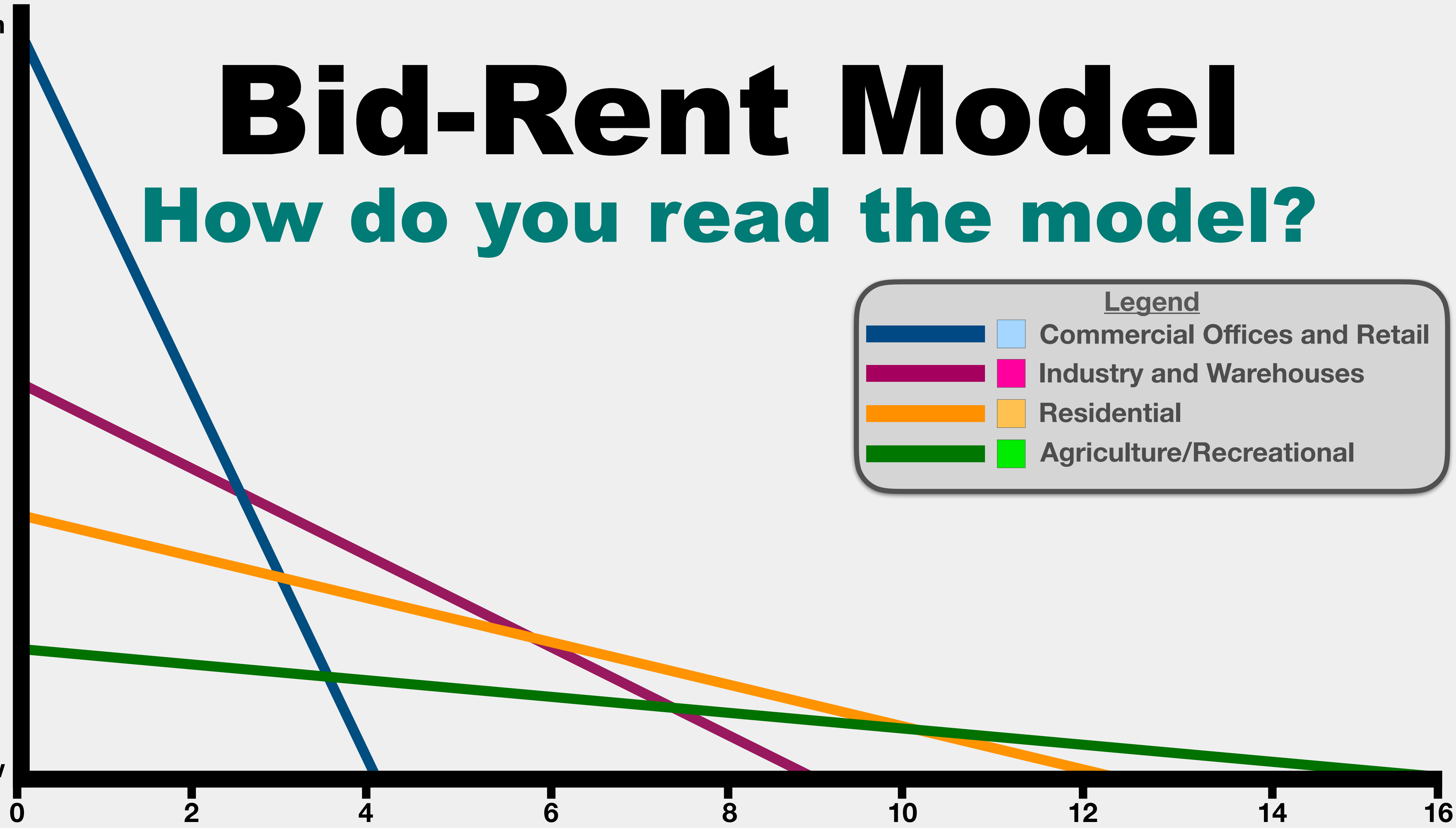
High

Low



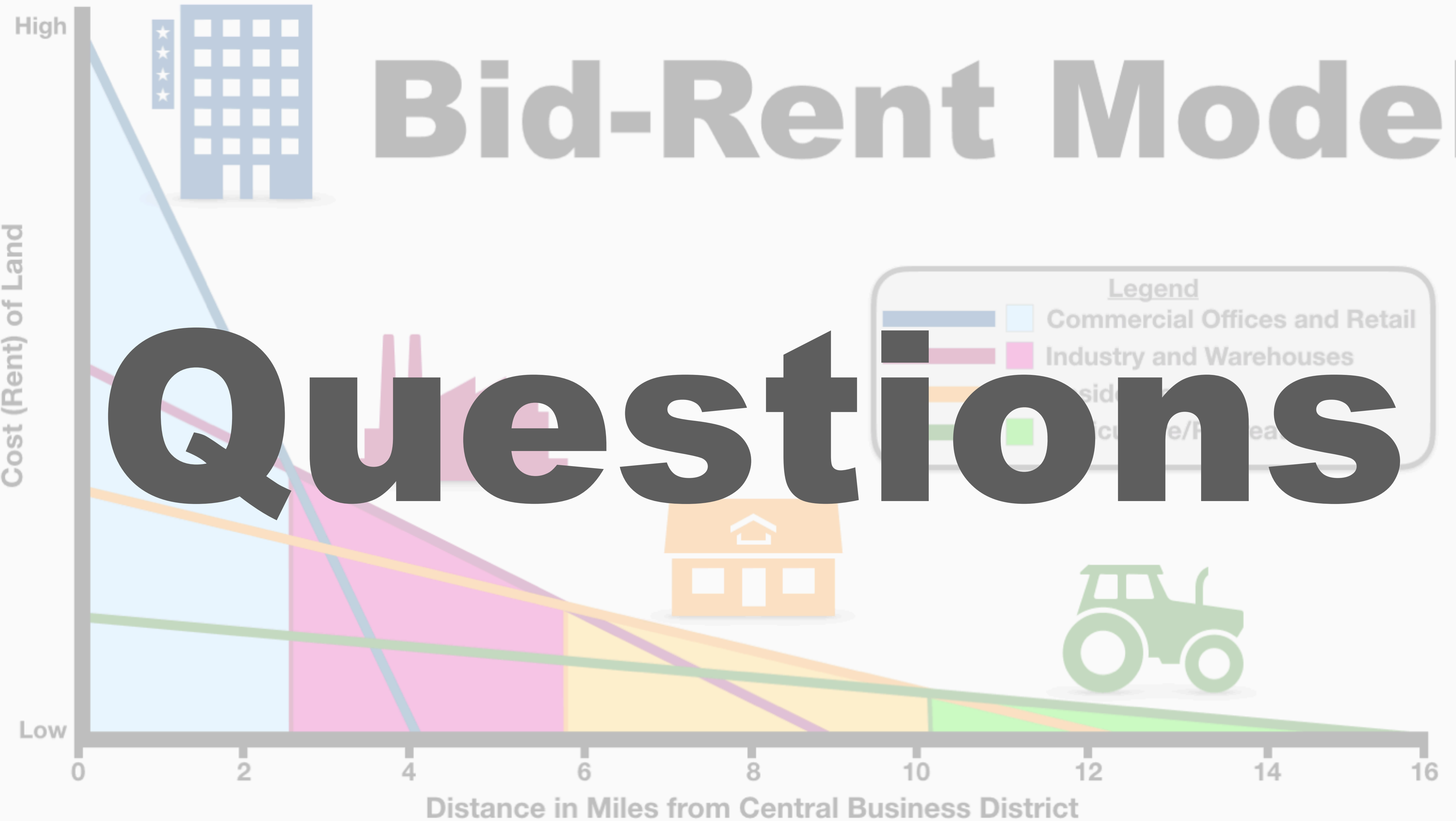
0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model

Questions



Bid-Rent Model



QUESTION
At what distance will
industry outbid
commercial?



Cost (Rent) of Land

High

Low

0

2

4

6

8

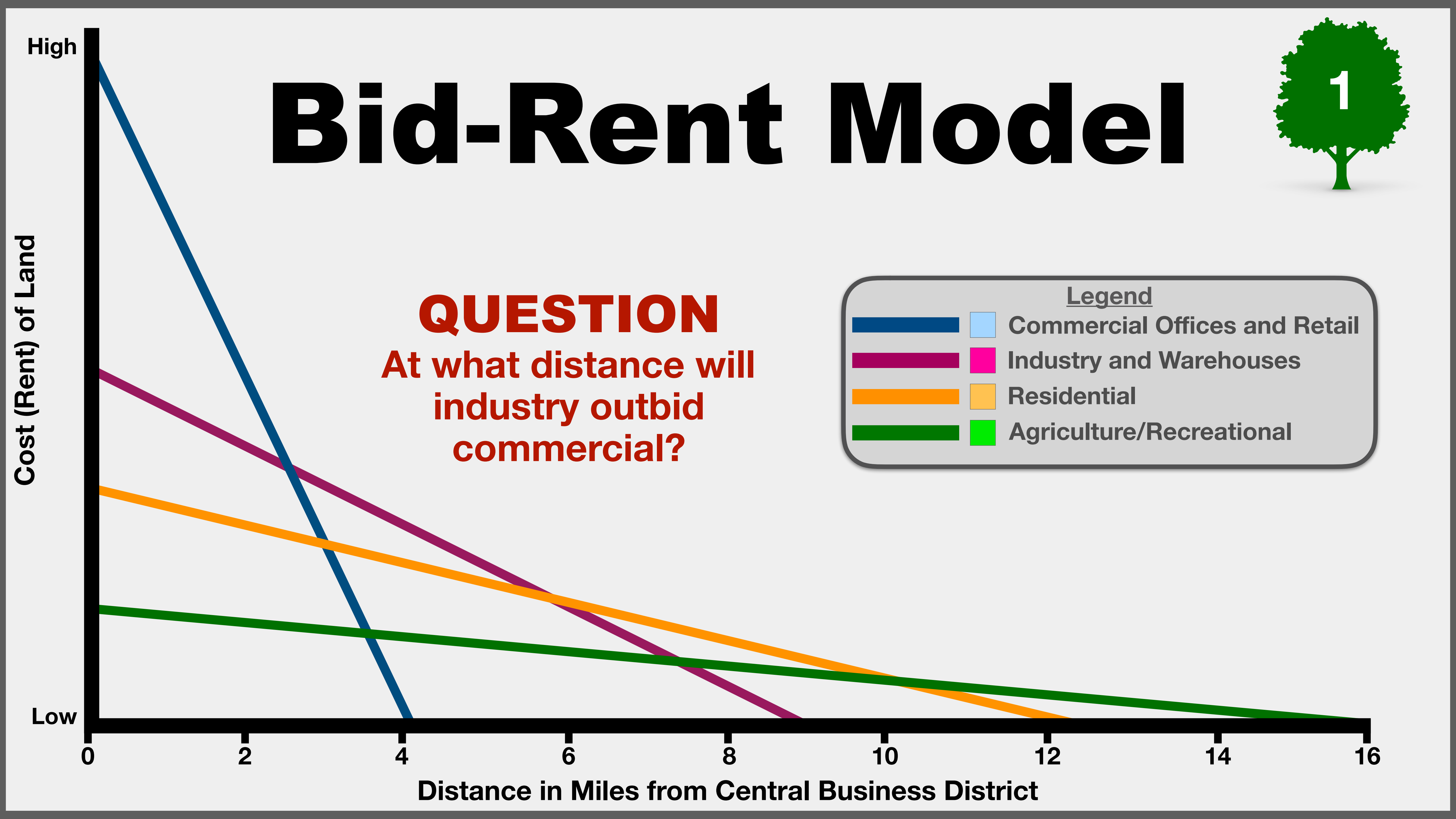
10

12

14

16

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

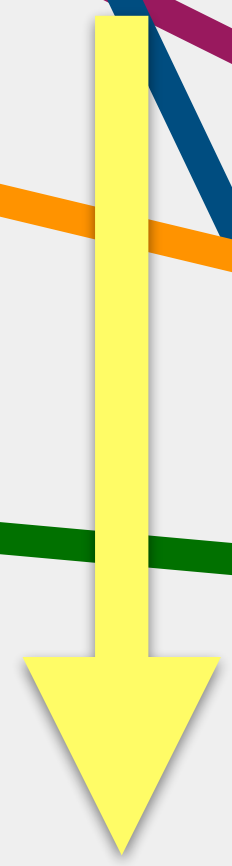
Low

QUESTION
At what distance will
industry outbid
commercial?



0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

Low

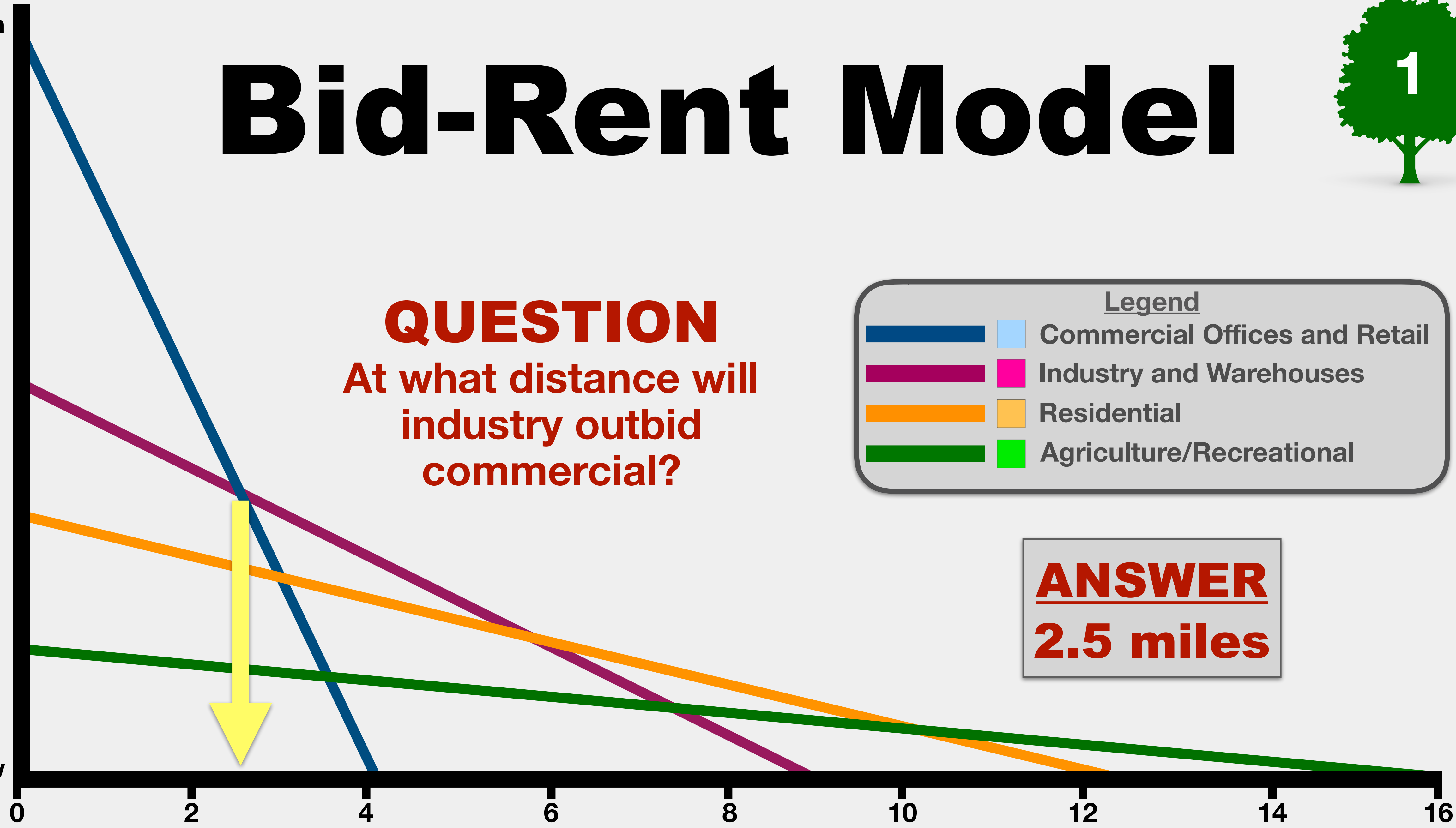
0 2 4 6 8 10 12 14 16

QUESTION

At what distance will industry outbid commercial?



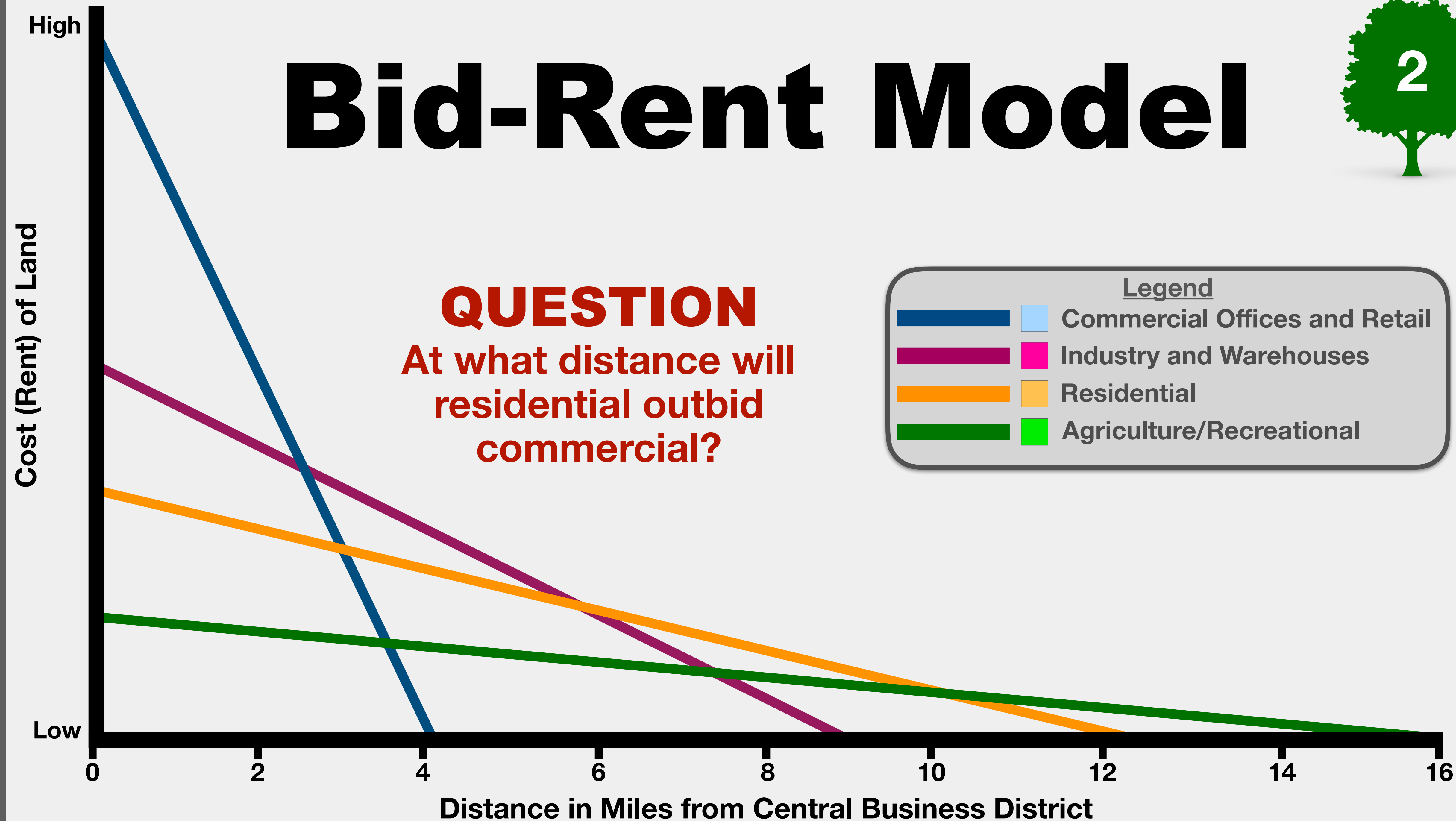
ANSWER
2.5 miles



Bid-Rent Model



QUESTION
At what distance will residential outbid commercial?



Bid-Rent Model



Cost (Rent) of Land

High

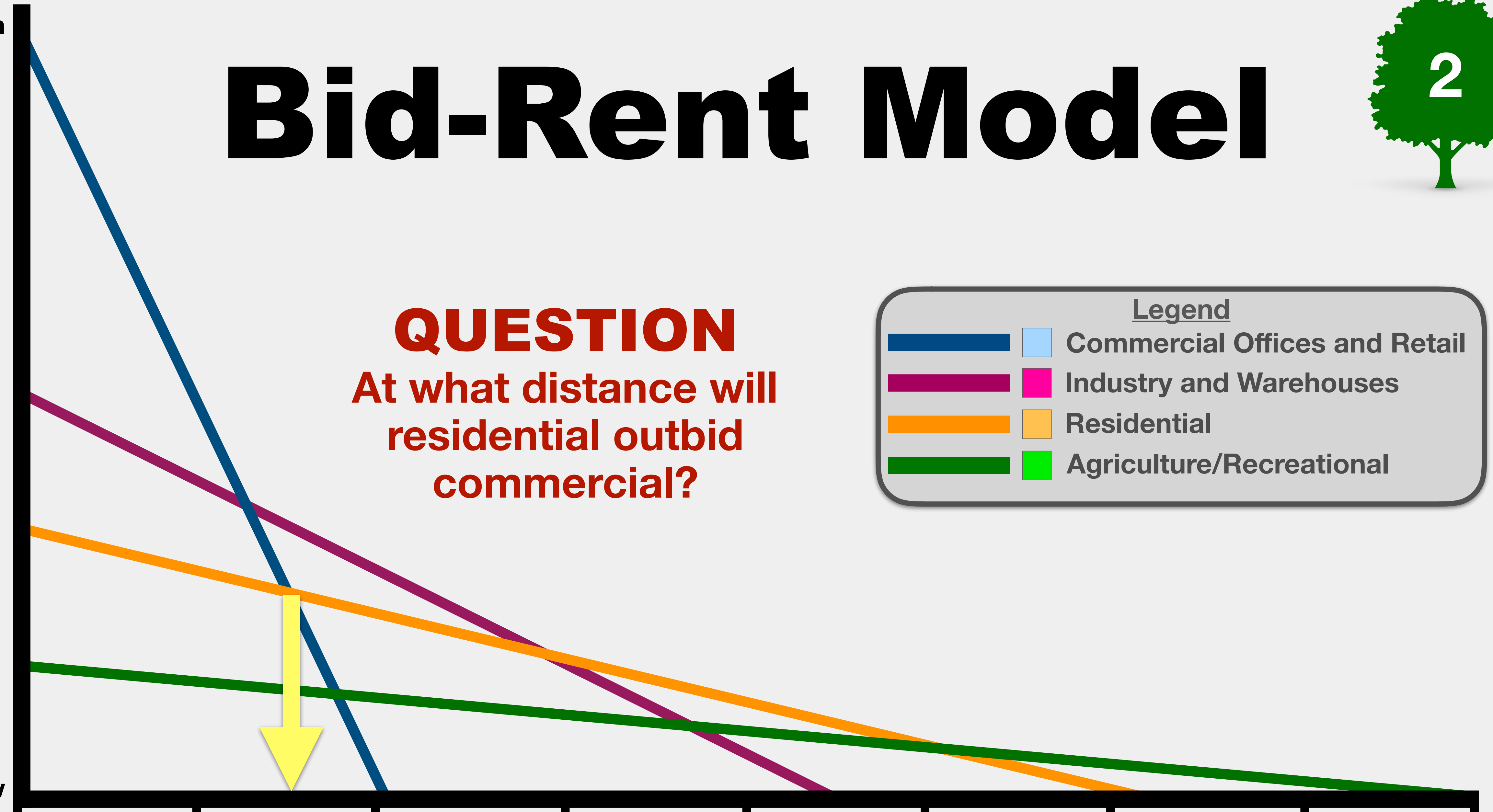
Low

QUESTION
At what distance will residential outbid commercial?



0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District





Bid-Rent Model

Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

QUESTION

At what distance will residential outbid commercial?

Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

ANSWER
3 miles



Distance in Miles from Central Business District

Bid-Rent Model



QUESTION
At what distance will
agriculture outbid
industry?



Cost (Rent) of Land

High

Low

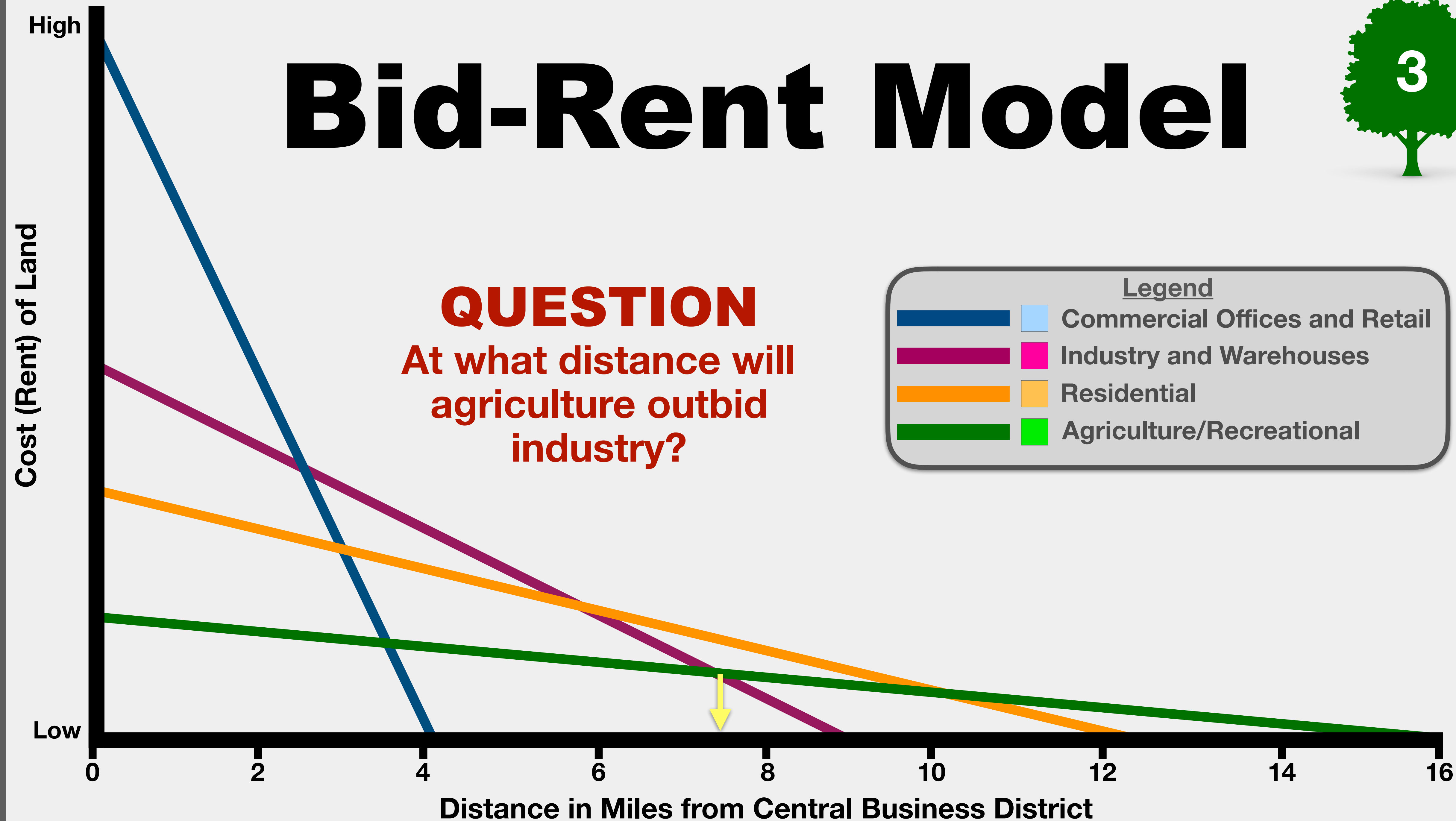
0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

Bid-Rent Model



QUESTION
At what distance will
agriculture outbid
industry?



Bid-Rent Model



Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

QUESTION

At what distance will agriculture outbid industry?



ANSWER
7.5 miles

Distance in Miles from Central Business District



Bid-Rent Model



QUESTION
At what distance will
agriculture outbid
commercial?



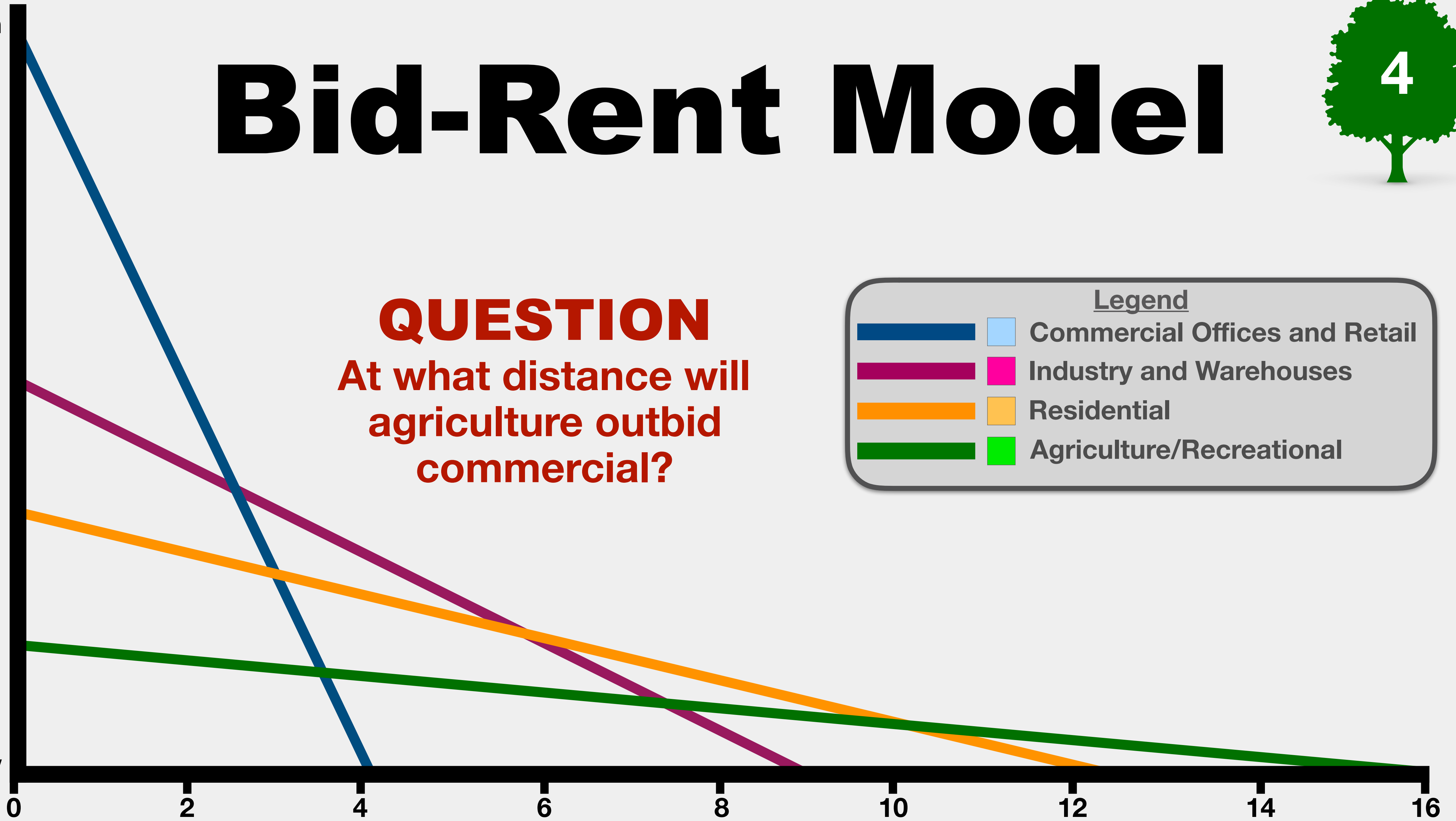
Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

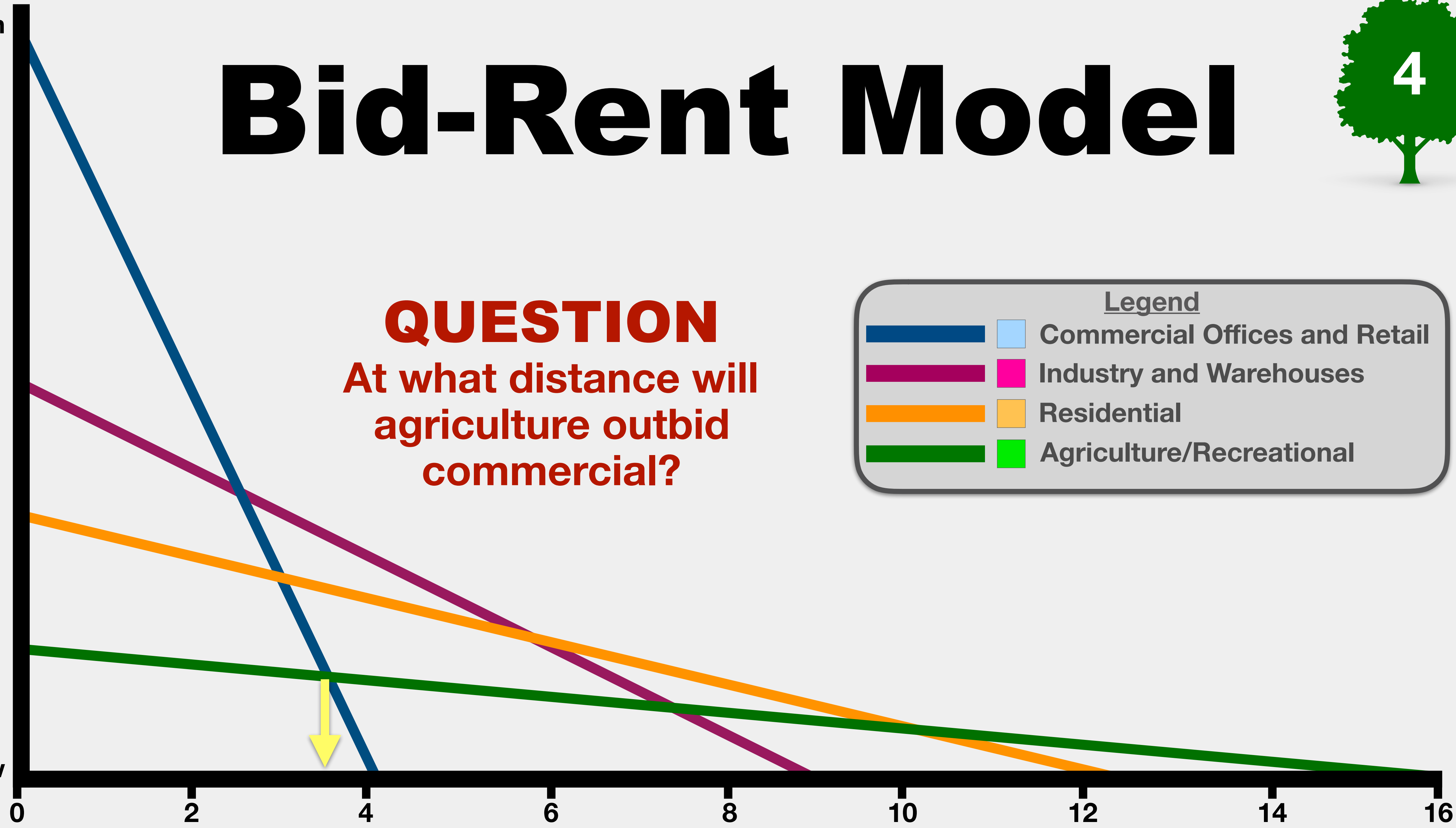
Low

QUESTION
At what distance will
agriculture outbid
commercial?



0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

QUESTION

At what distance will agriculture outbid commercial?



ANSWER
3.5 miles



Distance in Miles from Central Business District

Bid-Rent Model



QUESTION
At what distance will
agriculture outbid
residential?



Cost (Rent) of Land

High

Low

0

2

4

6

8

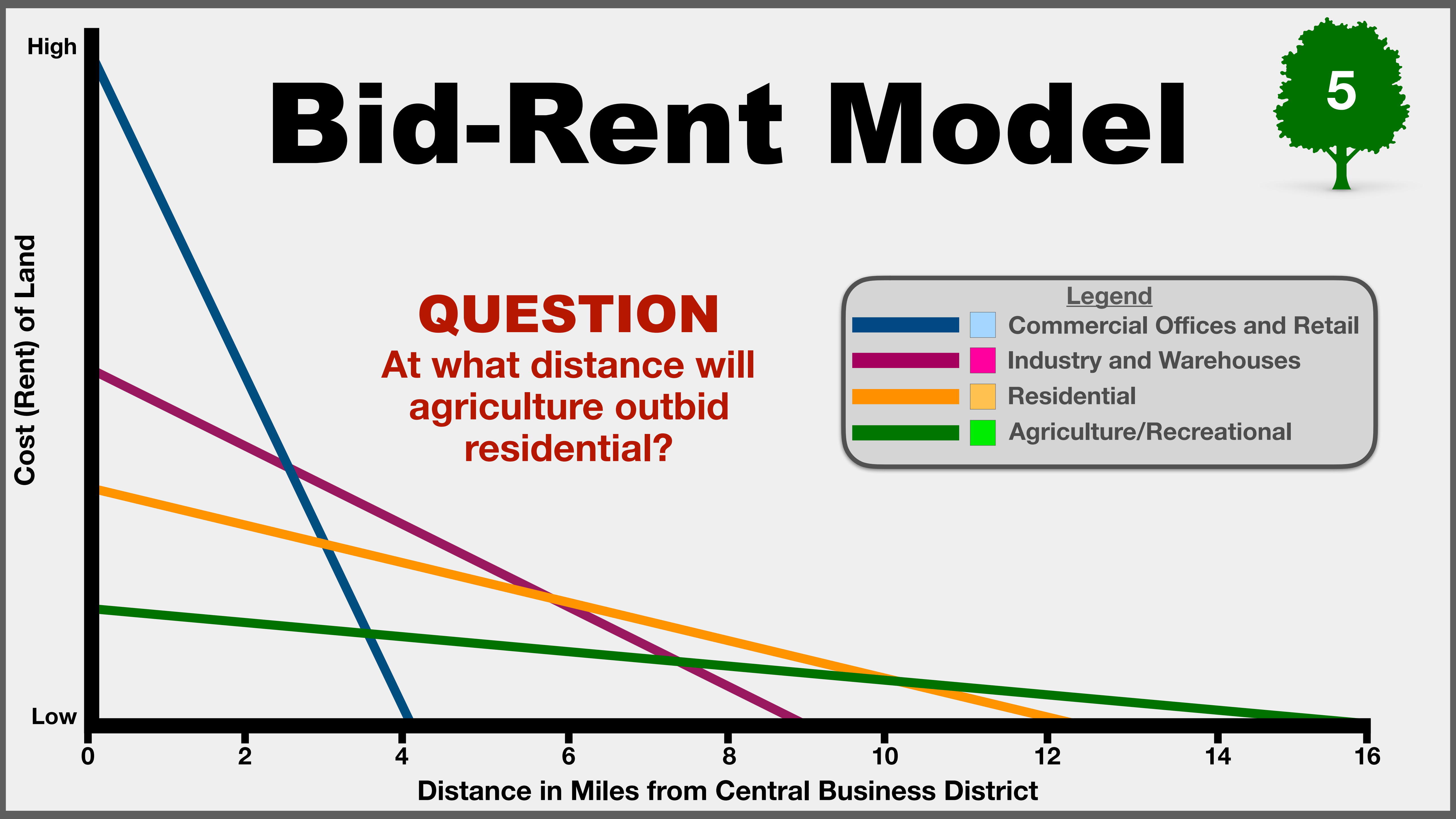
10

12

14

16

Distance in Miles from Central Business District



Bid-Rent Model



QUESTION
At what distance will
agriculture outbid
residential?



Cost (Rent) of Land

High

Low

0

2

4

6

8

10

12

14

16

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

Low

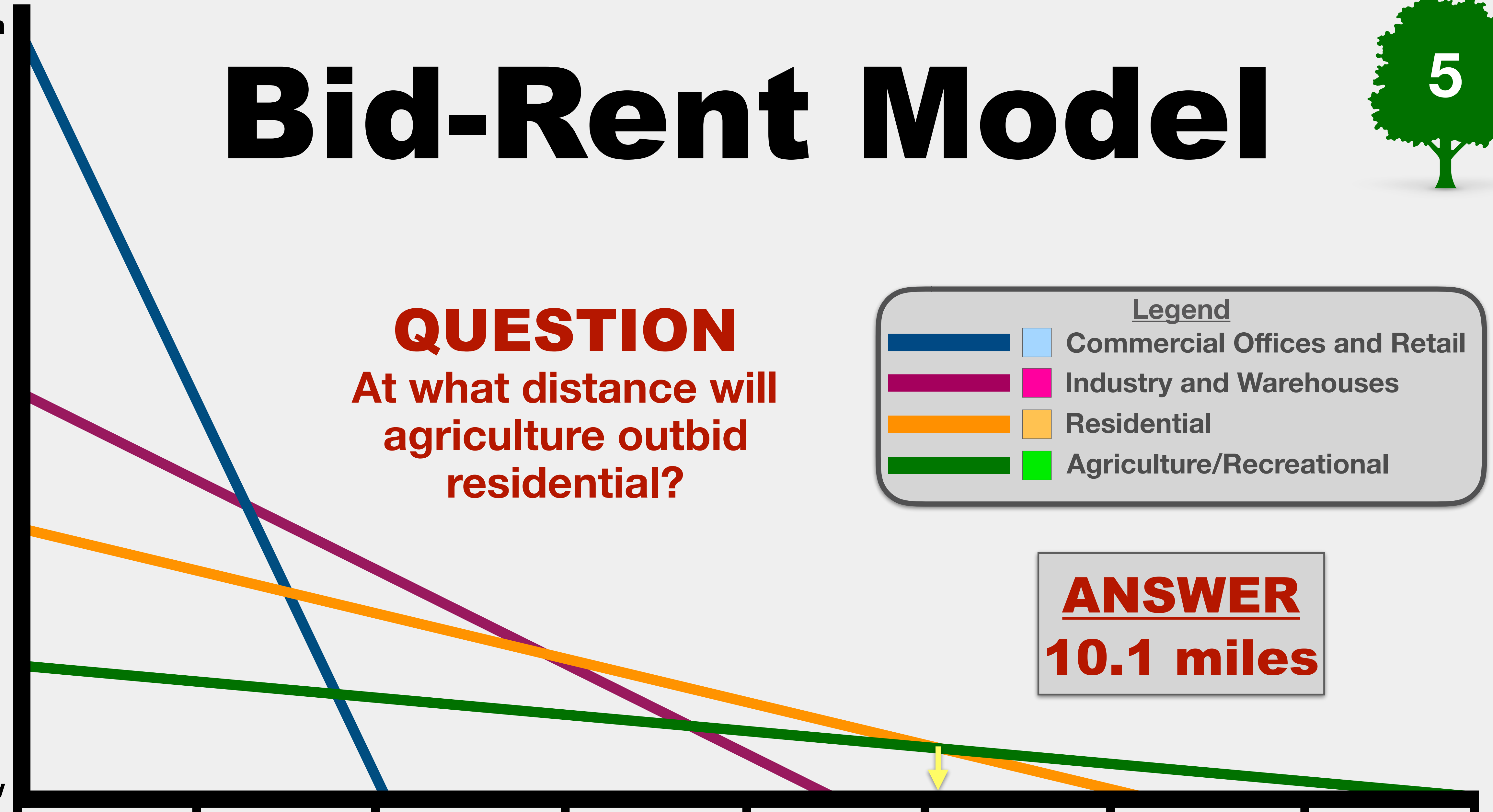
QUESTION
At what distance will
agriculture outbid
residential?



ANSWER
10.1 miles

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



QUESTION
At four miles what
outbids all other land
uses?



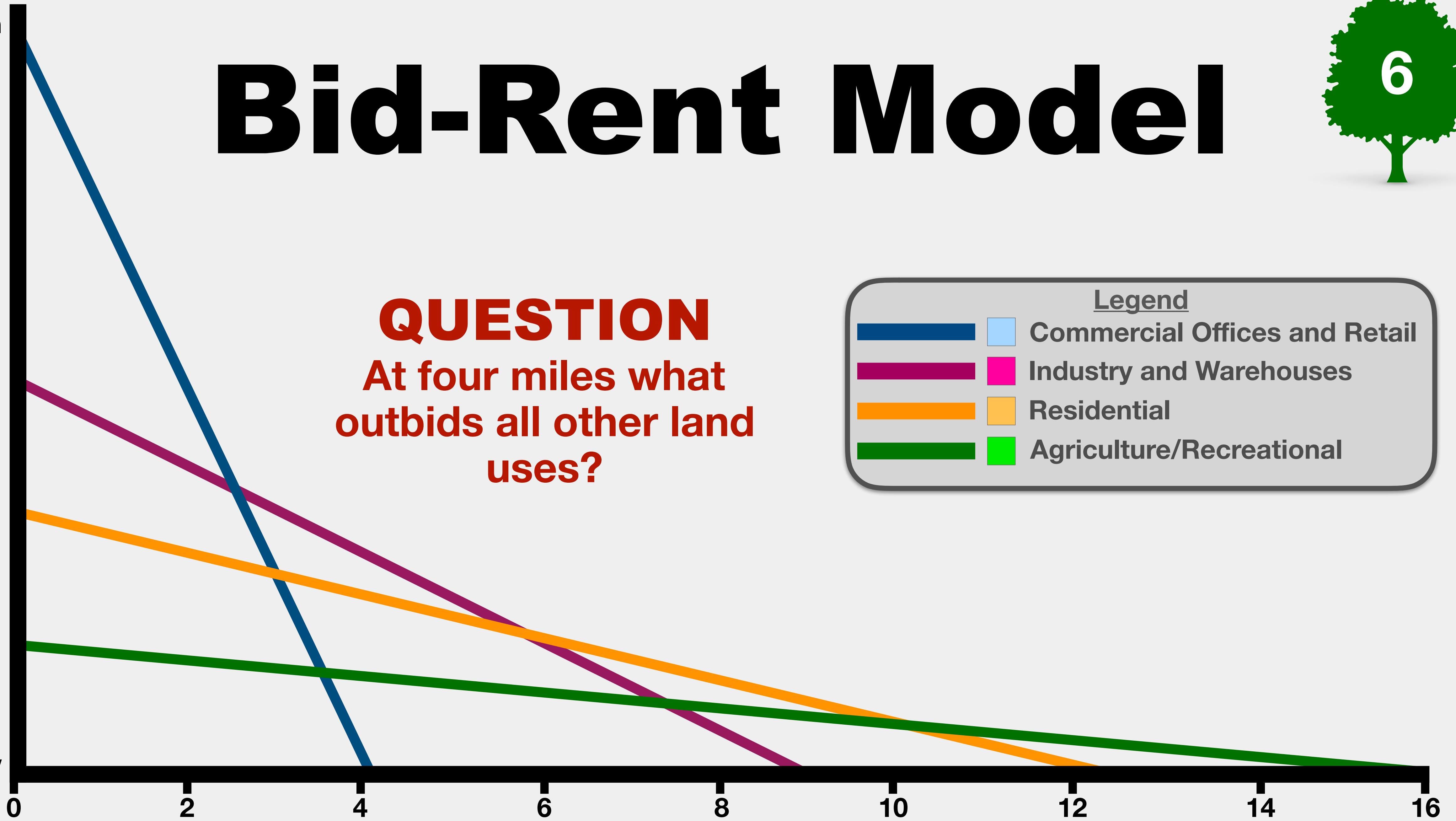
Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

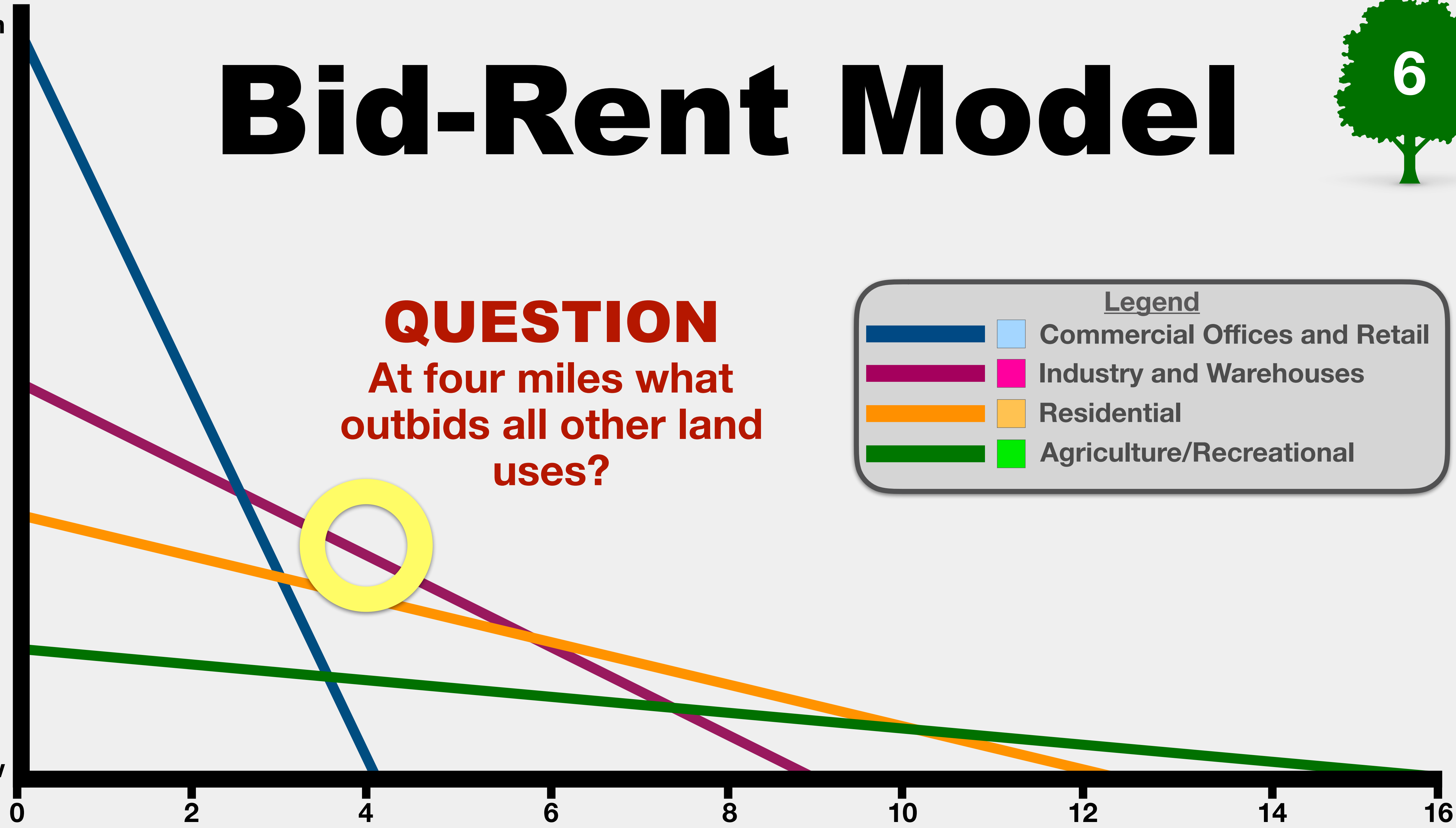
Low

QUESTION
At four miles what
outbids all other land
uses?



0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

QUESTION

At four miles what
outbids all other land
uses?



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

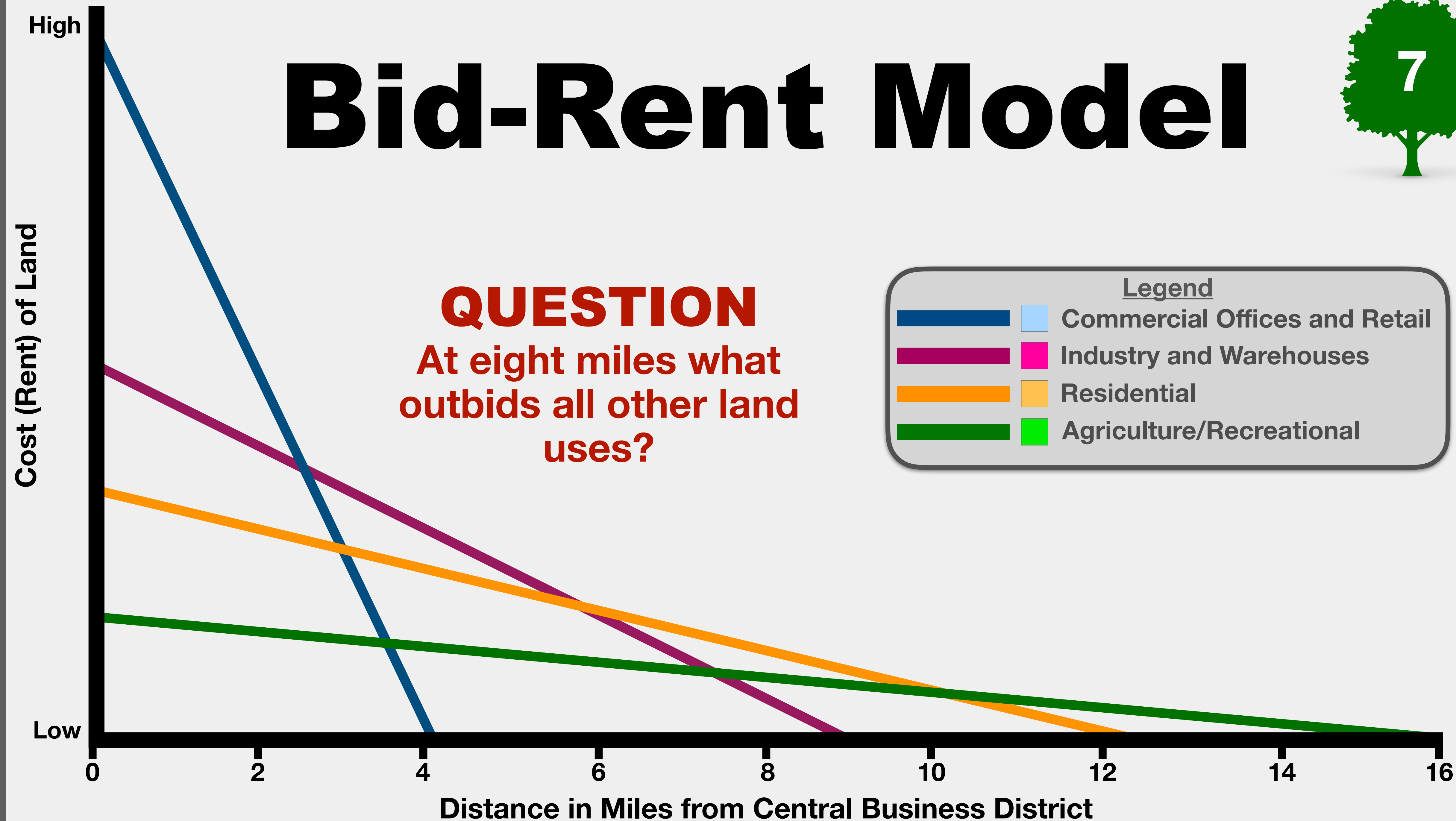
ANSWER
Industry

Distance in Miles from Central Business District

Bid-Rent Model



QUESTION
At eight miles what
outbids all other land
uses?



Bid-Rent Model

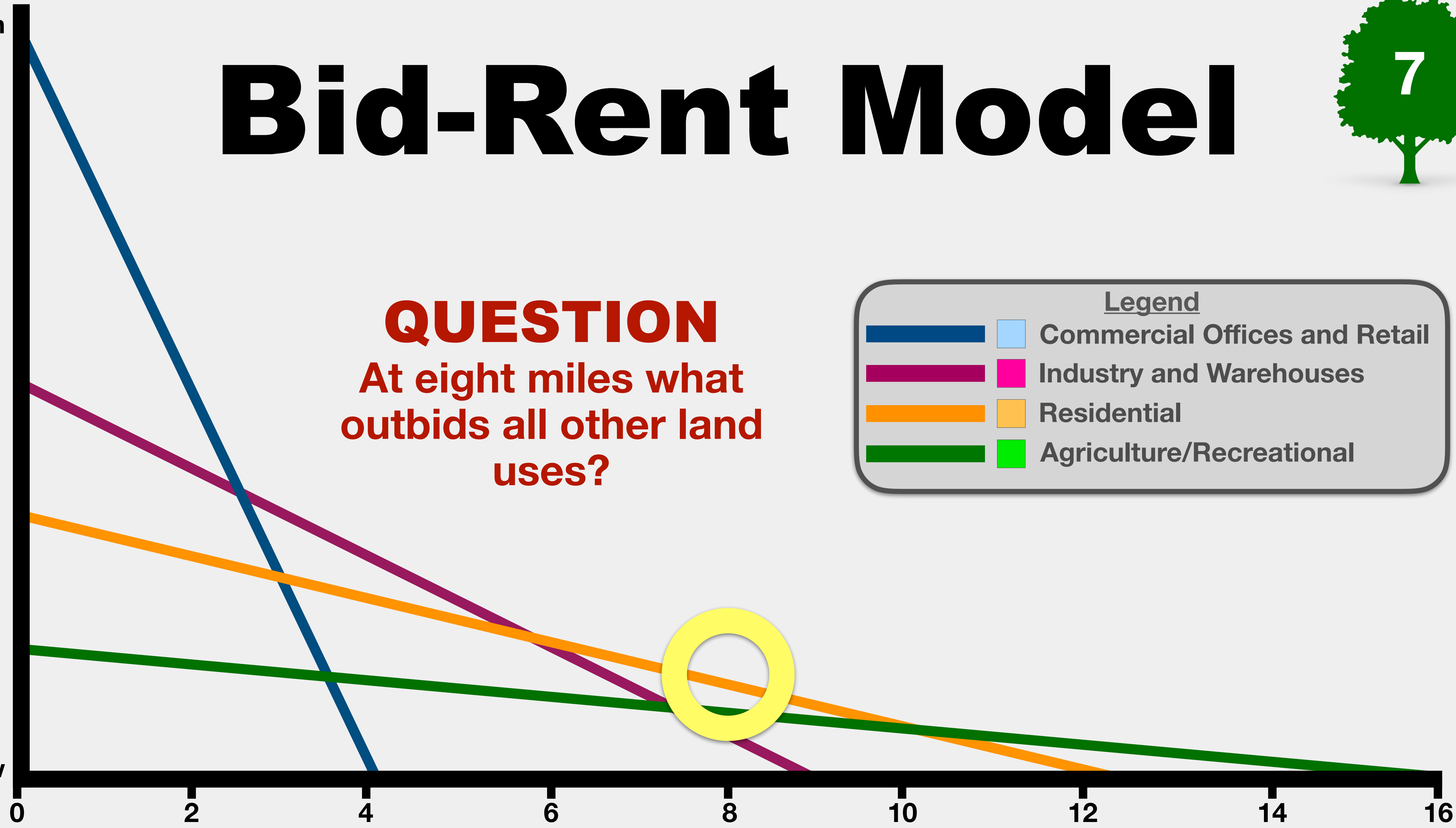


Cost (Rent) of Land

High

Low

QUESTION
At eight miles what
outbids all other land
uses?



Distance in Miles from Central Business District

Bid-Rent Model



Cost (Rent) of Land

High

Low

QUESTION
At eight miles what
outbids all other land
uses?



ANSWER
residential

0 2 4 6 8 10 12 14 16

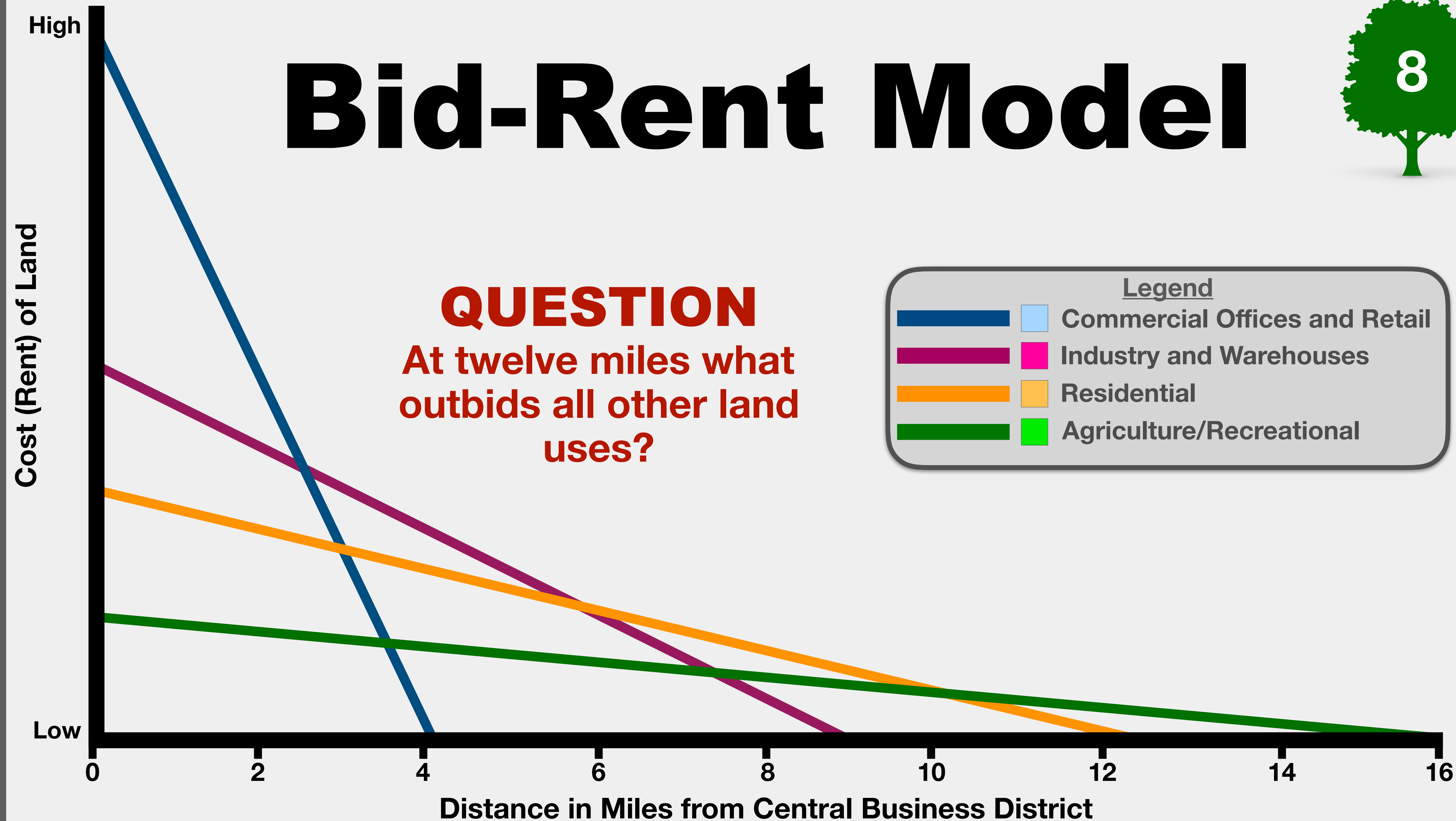
Distance in Miles from Central Business District



Bid-Rent Model



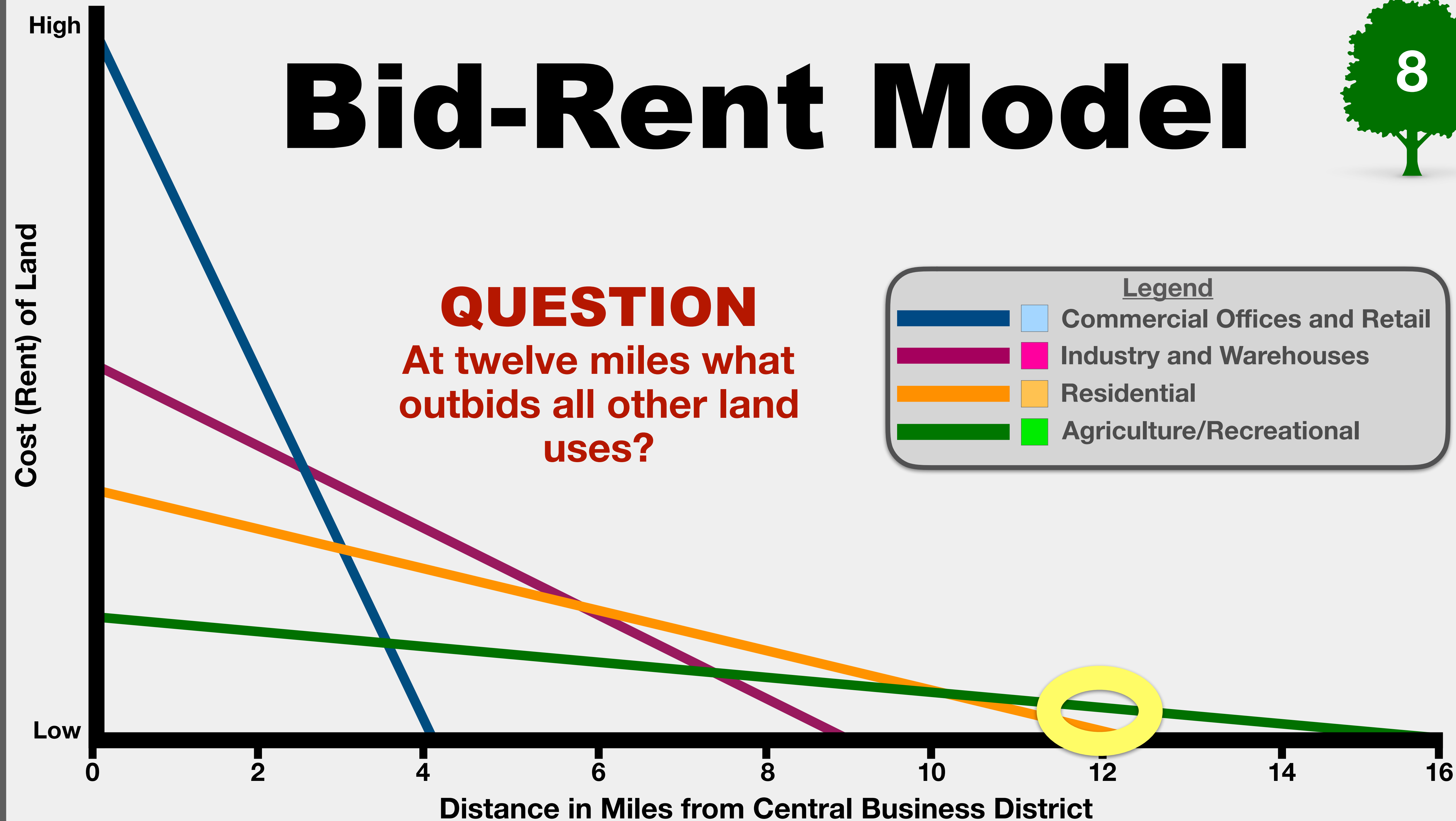
QUESTION
At twelve miles what
outbids all other land
uses?



Bid-Rent Model



QUESTION
At twelve miles what
outbids all other land
uses?



Bid-Rent Model



Cost (Rent) of Land

High

Low

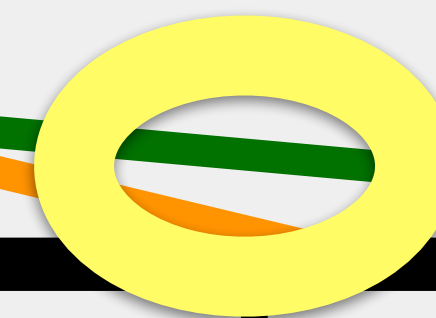
QUESTION
At twelve miles what
outbids all other land
uses?



ANSWER
agricultural

0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



Bid-Rent Model



QUESTION
At five miles what land use is outbid by all the other land uses?



Cost (Rent) of Land

High

Low

0

2

4

6

8

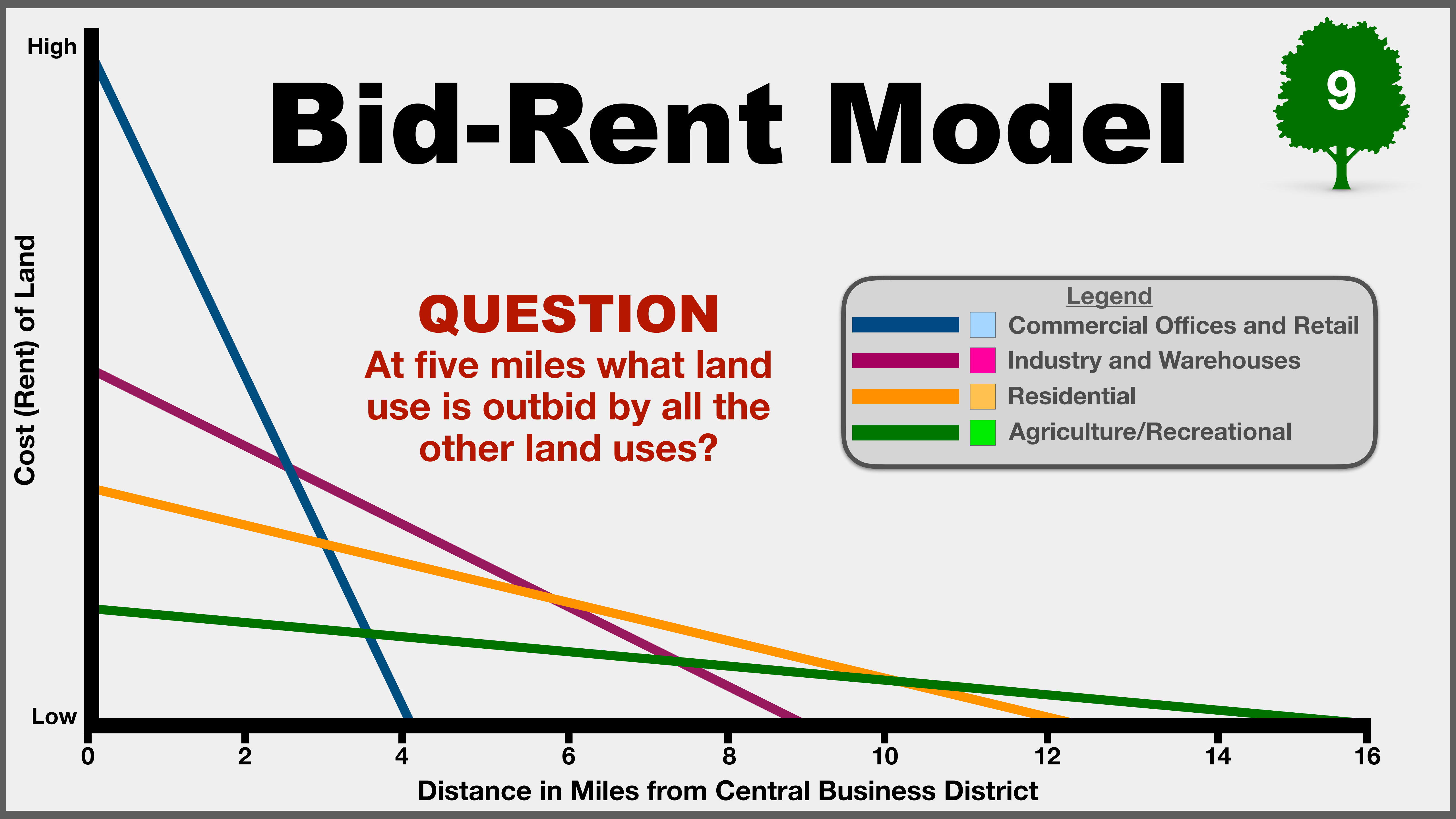
10

12

14

16

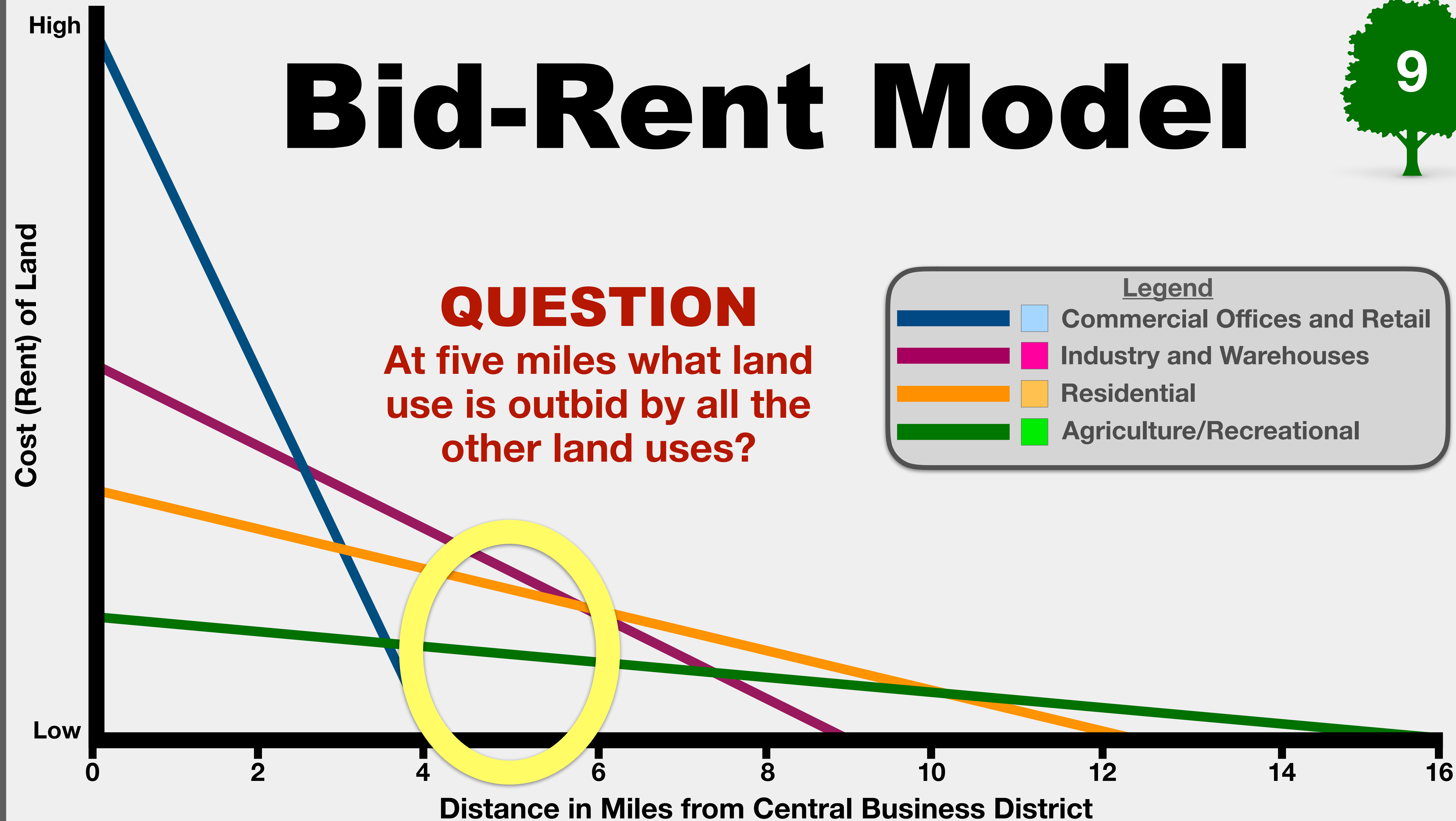
Distance in Miles from Central Business District



Bid-Rent Model



QUESTION
At five miles what land use is outbid by all the other land uses?





Bid-Rent Model

Cost (Rent) of Land

High

Low

QUESTION
At five miles what land use is outbid by all the other land uses?

Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

ANSWER
commercial



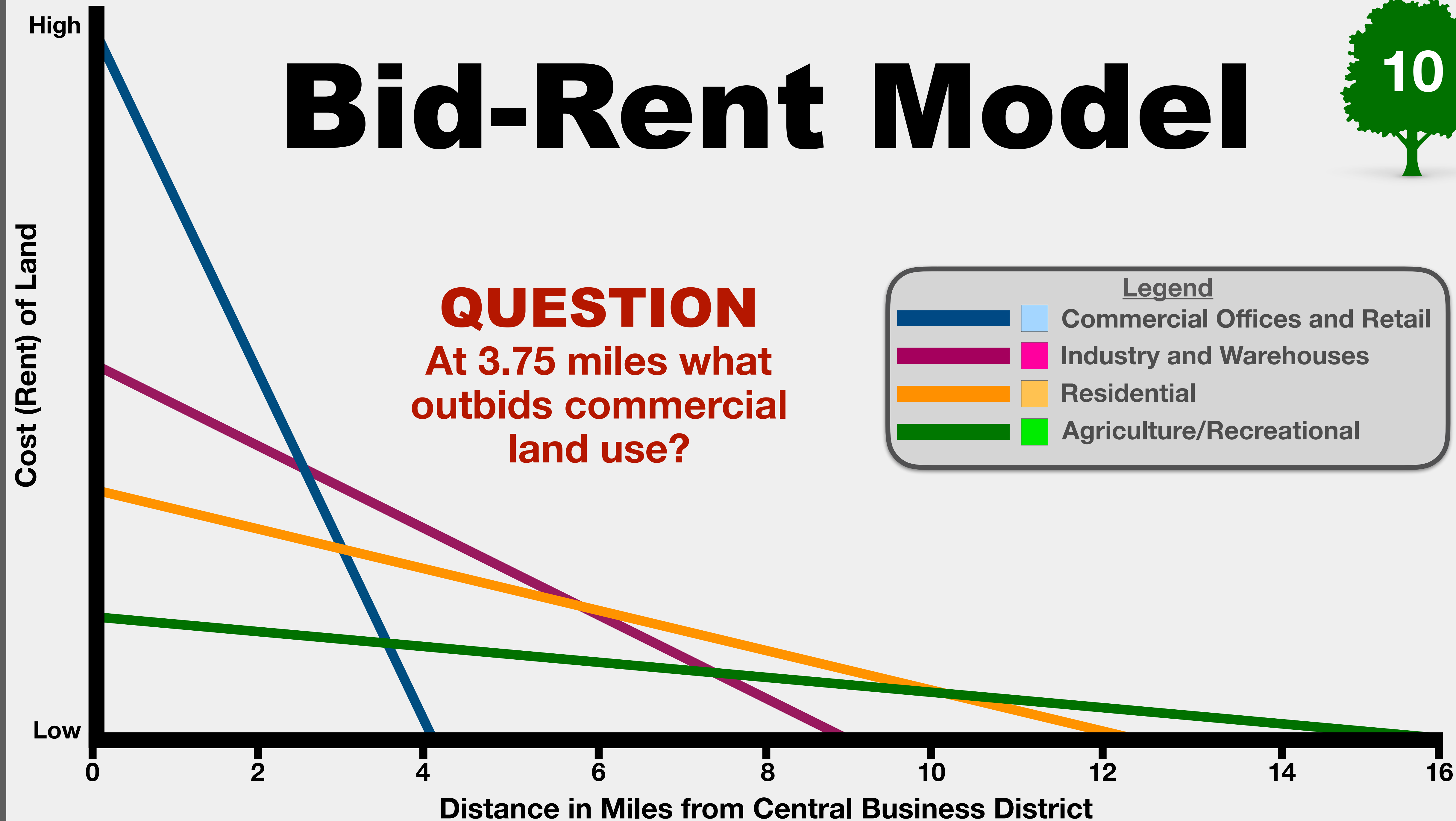
0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District

Bid-Rent Model



QUESTION
At 3.75 miles what
outbids commercial
land use?



Bid-Rent Model



Cost (Rent) of Land

High

Low

0 2 4 6 8 10 12 14 16

QUESTION

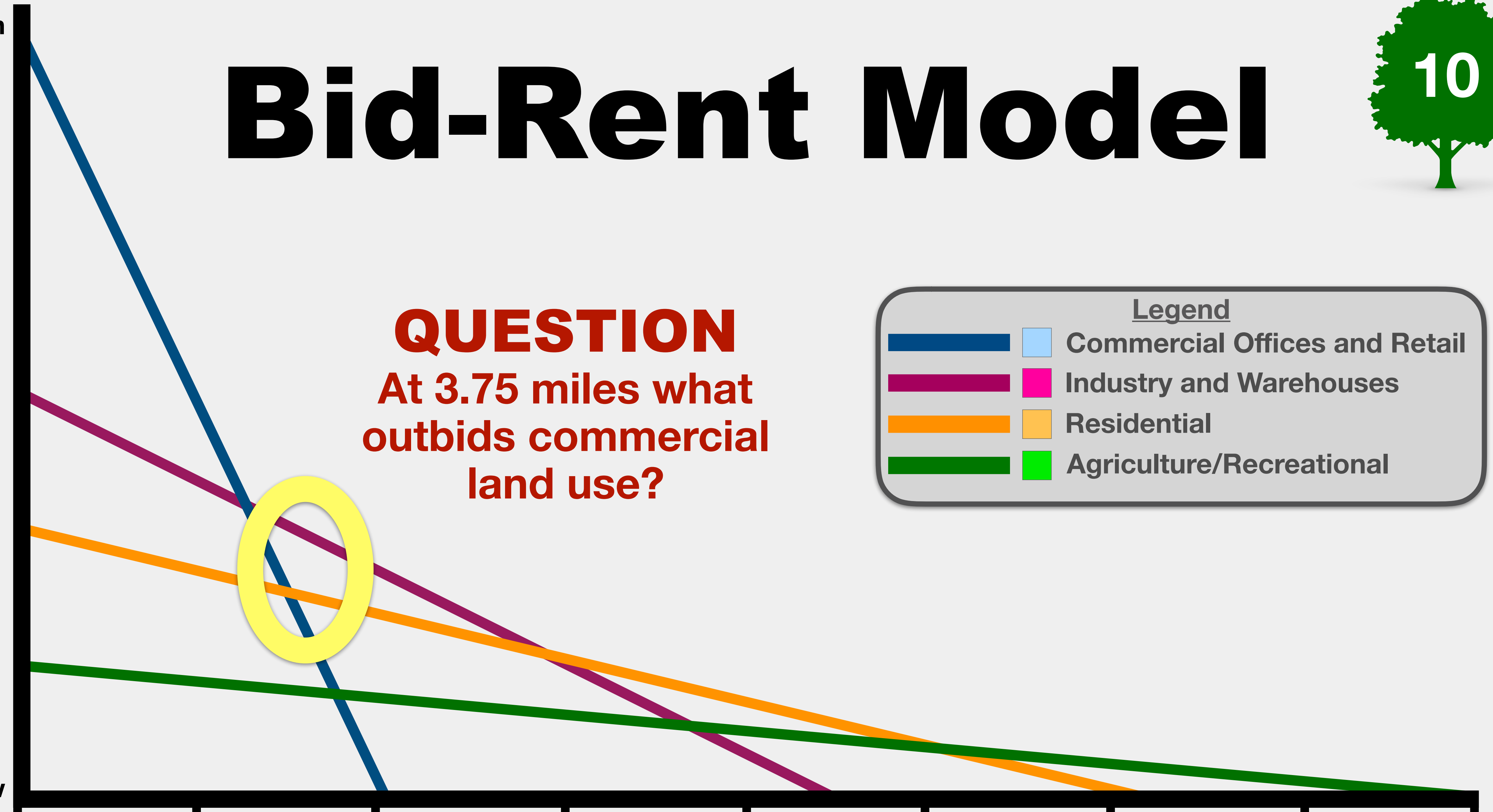
**At 3.75 miles what
outbids commercial
land use?**



Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

Distance in Miles from Central Business District



Bid-Rent Model



Cost (Rent) of Land

High

Low

QUESTION
At 3.75 miles what
outbids commercial
land use?

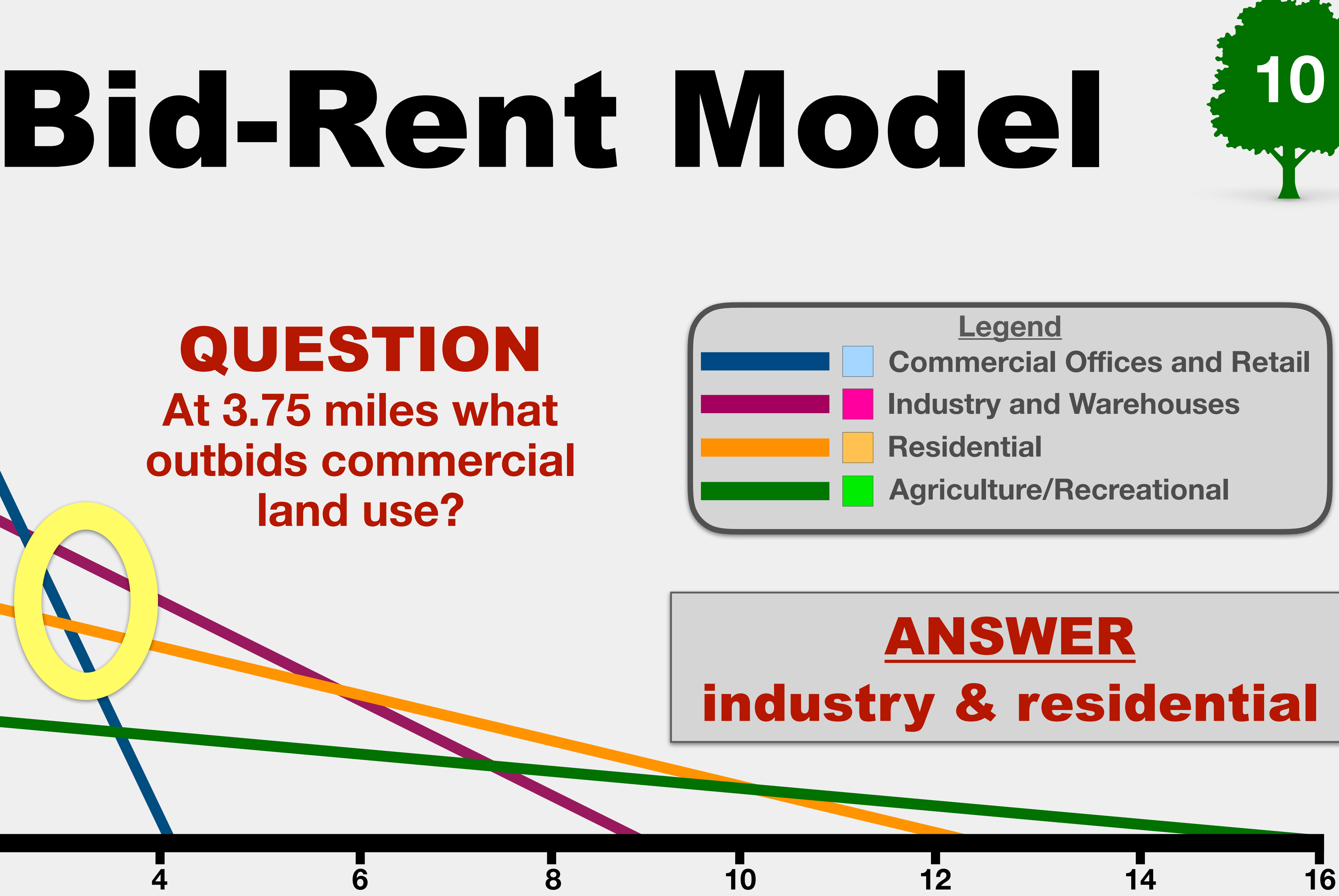
Legend

- Commercial Offices and Retail
- Industry and Warehouses
- Residential
- Agriculture/Recreational

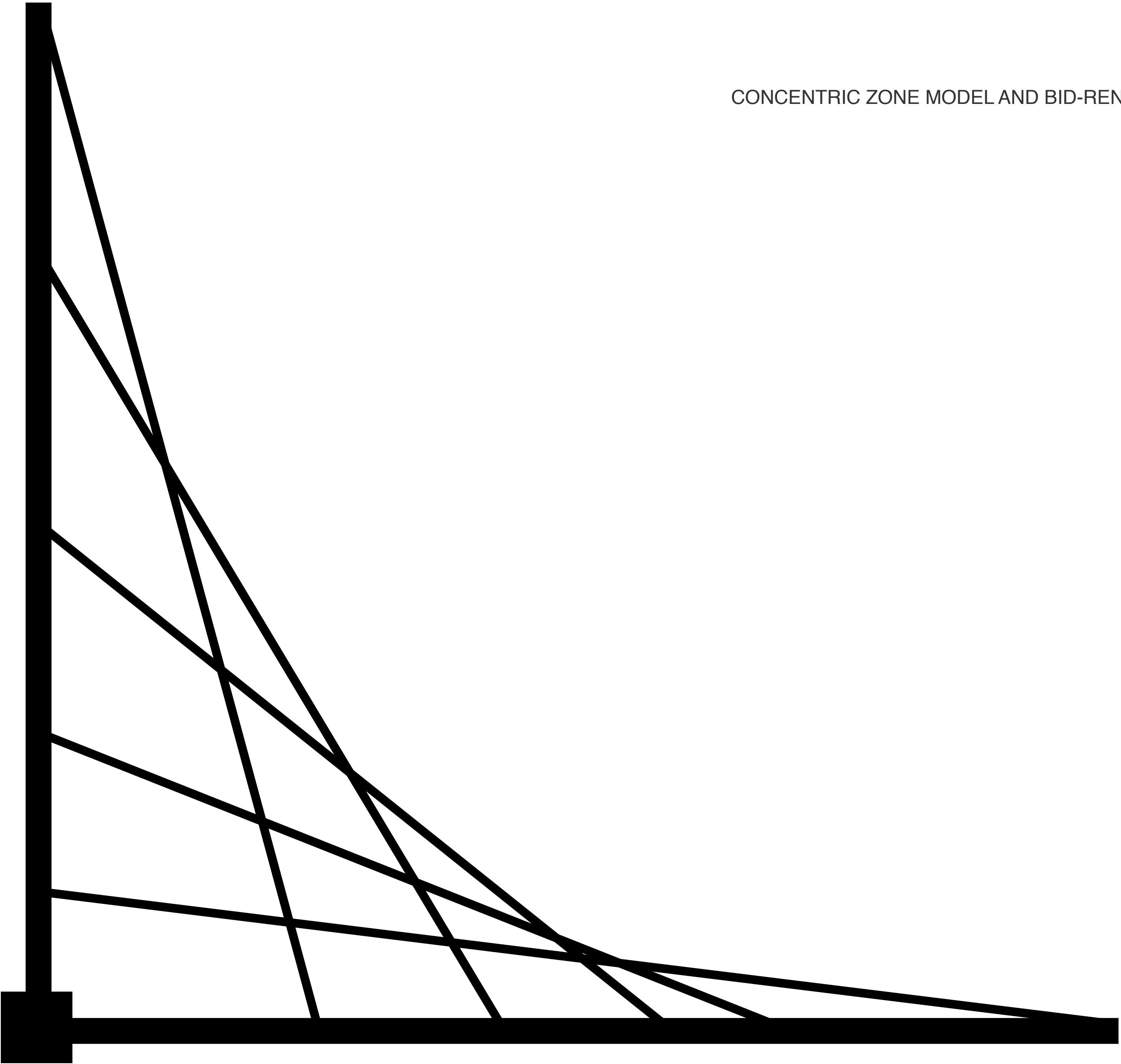
ANSWER
industry & residential

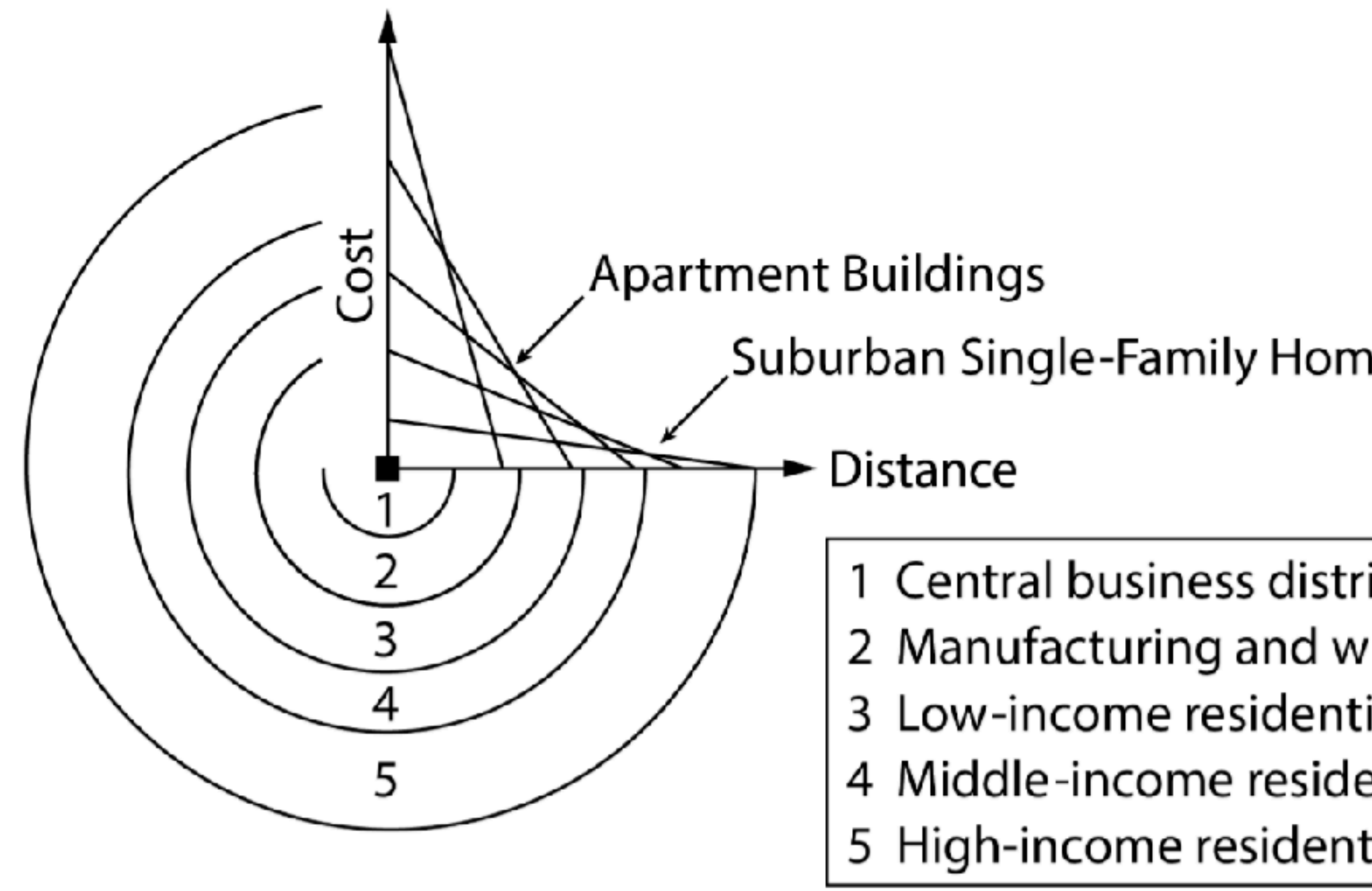
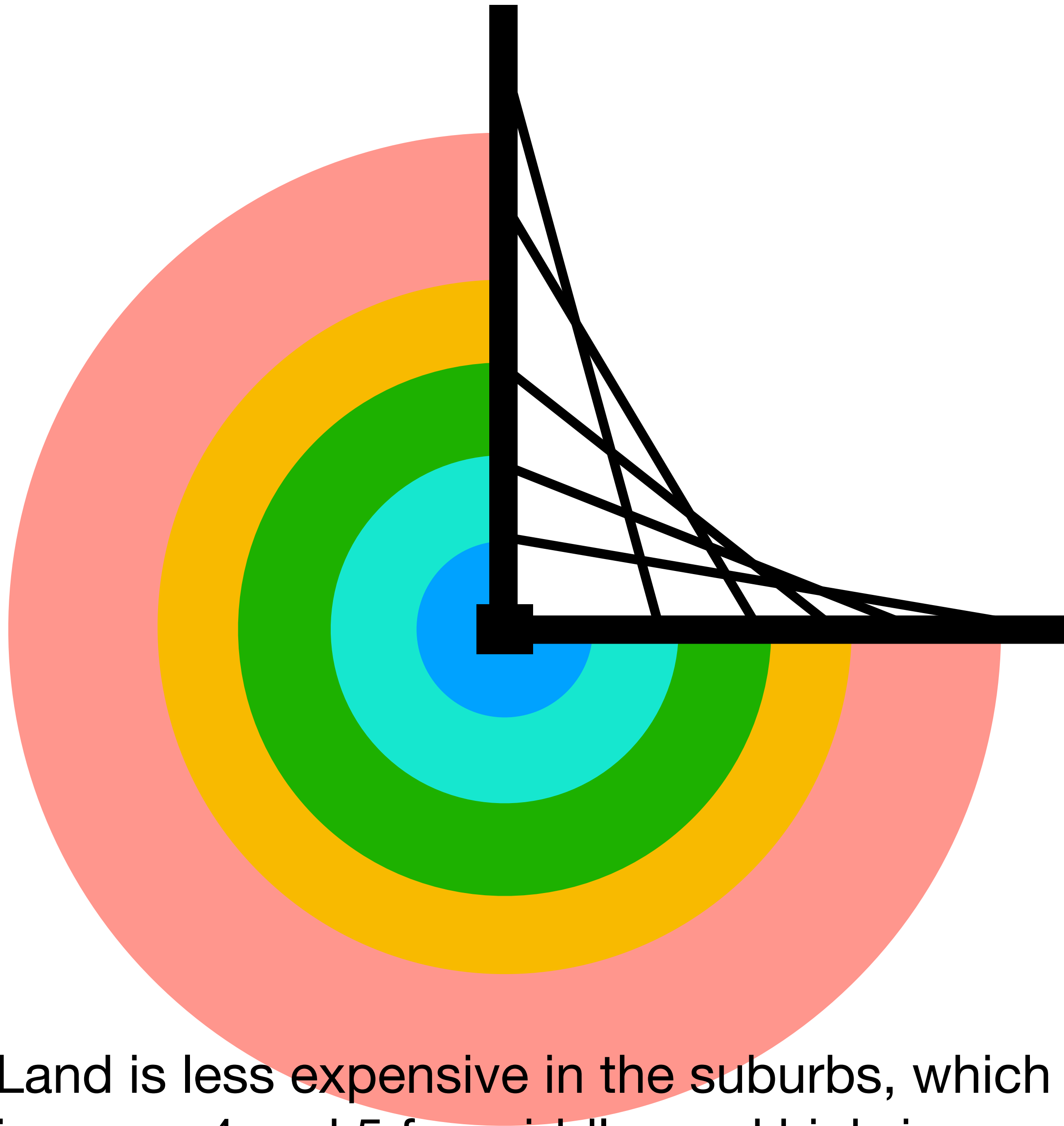
0 2 4 6 8 10 12 14 16

Distance in Miles from Central Business District



CONCENTRIC ZONE MODEL AND BID-RENT CURVE





- 1 Central business district
- 2 Manufacturing and warehouse
- 3 Low-income residential
- 4 Middle-income residential
- 5 High-income residential

Land is less expensive in the suburbs, which is why it is possible to build single-family homes in zones 4 and 5 for middle- and high-income residents who desire suburban living.

Variations to bid-rent theory

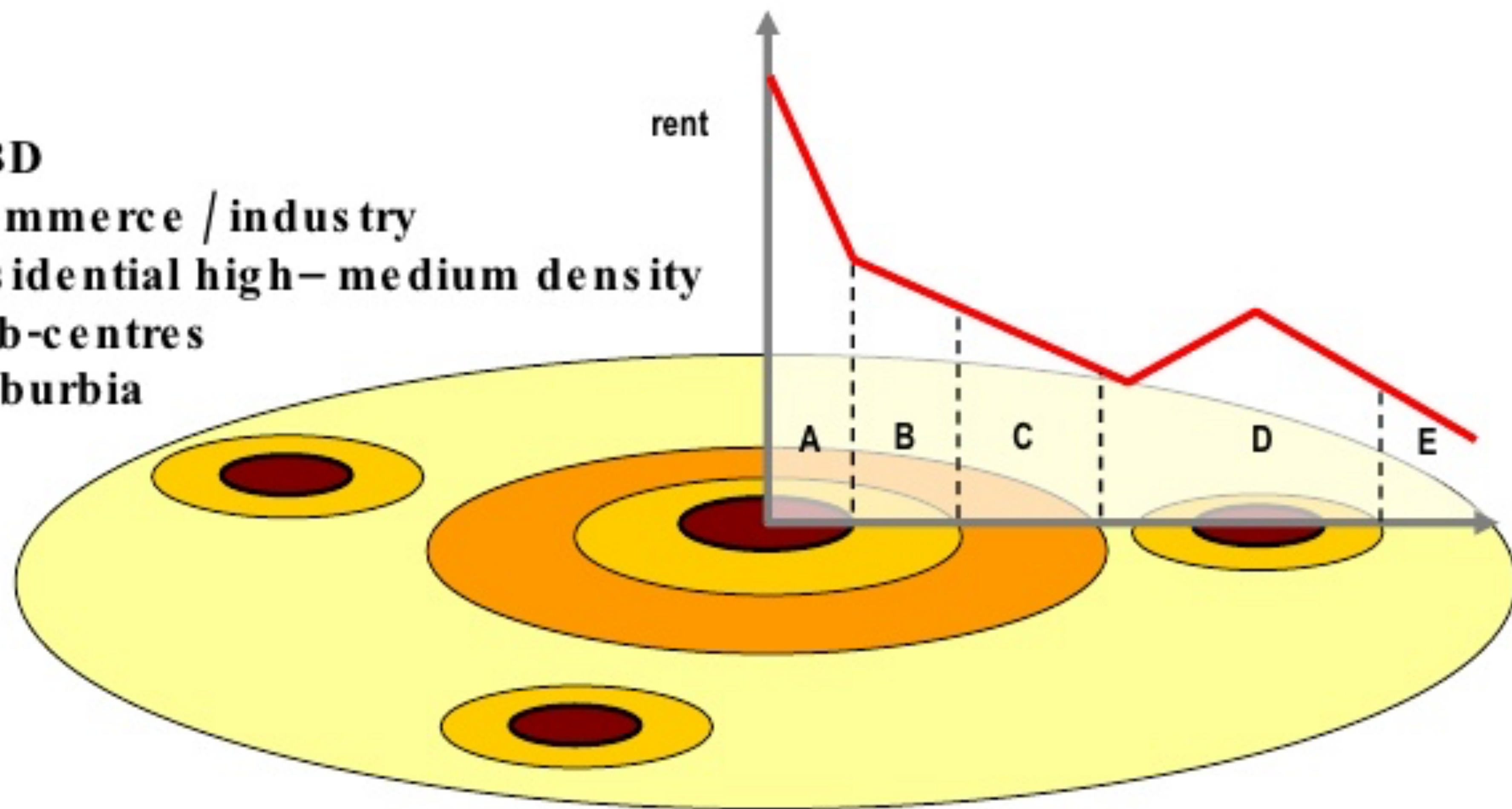
A – CBD

B – Commerce / industry

C – residential high–medium density

D – sub-centres

E – Suburbia



The concentric zone model was created at a time when there were not large suburban central business districts. Large suburbs existed as early as the 1870s. However, suburban central business districts, offering a range of services and functioning as centers of professional employment, were not common until after the 1950s.

Compare Memphis with a city in Europe

Describe the similarities and differences in the spatial organization of cities in Western Europe and North America in terms of the following aspects.

- A. Geographic size
- B. Height and design of buildings in central business district
- C. Public space
- D. Patterns of economic class
- E. Ethnic neighborhoods

Geographic size: Cities of North America generally tend to be larger, more sprawling than are cities of Western Europe, especially the younger, postautomobile cities of the American South and West; preautomobile cities tend to be more compact and therefore more similar to those of Western Europe.

Student response earns 2 of the following points:

Describe the similarities and differences in the spatial organization of cities in Western Europe and North America in terms of the following aspects. (2 points for each aspect. Discussion MUST include similarities and differences in BOTH Western Europe and North America. in the discussion.)

Geographic size: Cities of North America generally tend to be larger, more sprawling than are cities of Western Europe, especially the younger, postautomobile cities of the American South and West; preautomobile cities tend to be more compact and therefore more similar to those of Western Europe.

Height and design of buildings in the central business district (CBD): Cities of North America generally have distinctive, high-profile buildings of modern or postmodern design in the CBD; cities of Western Europe tend to have a flat profile with most buildings rarely rising above five stories and reflecting historic rather than modern styles; in both cases the CBD is the center of business activity.

Student response earns 2 of the following points:

Describe the similarities and differences in the spatial organization of cities in Western Europe and North America in terms of the following aspects. (2 points for each aspect. Discussion MUST include similarities and differences in BOTH Western Europe and North America. 1 point is awarded for EACH area in the discussion.)

Height and design of buildings in the central business district (CBD): Cities of North America generally have distinctive, high-profile buildings of modern or postmodern design in the CBD; cities of Western Europe tend to have a flat profile with most buildings rarely rising above five stories and reflecting historic rather than modern styles; in both cases the CBD is the center of business activity.

Public space: Cities of Western Europe are more pedestrian-oriented and tend to preserve park area, plaza, historic sites, and other public spaces; cities of North America are more automobile-oriented and more people live in suburban neighborhoods where the mall has taken the place of traditional public spaces, rather than in the city. Cities of both Western Europe and North America are cognizant of the need for parks and other public spaces.

Student response earns 2 of the following points:
Describe the similarities and differences in the spatial organization of cities in Western Europe and North America in terms of the following aspects. (2 points for each aspect. Discussion MUST include similarities and differences in BOTH Western Europe and North America. 1 point is awarded for EACH area in the discussion.)

Public space: Cities of Western Europe are more pedestrian-oriented and tend to preserve park area, plaza, historic sites, and other public spaces; cities of North America are more automobile-oriented and more people live in suburban neighborhoods where the mall has taken the place of traditional public spaces, rather than in the city. Cities of both Western Europe and North America are cognizant of the need for parks and other public spaces.

Patterns of economic class: Cities of both Western Europe and North America have varying economic classes, but their spatial arrangement is not always the same; in European cities middle-class workers are likely to be found in historic areas or near the city center; in North American cities, the middle class is more likely to occupy housing in the suburbs, and inner city neighborhoods are more likely to be occupied by low-income workers or to be experiencing gentrification and the return of young professionals.

Student response earns 2 of the following points:

Describe the similarities and differences in the spatial organization of cities in Western Europe and North America in terms of the following aspects. (2 points for each aspect. Discussion MUST include similarities and differences in BOTH Western Europe and North America. 1 point is awarded for EACH area in the discussion.)

Patterns of economic class: Cities of both Western Europe and North America have varying economic classes, but their spatial arrangement is not always the same; in European cities middle-class workers are likely to be found in historic areas or near the city center; in North American cities, the middle class is more likely to occupy housing in the suburbs, and inner city neighborhoods are more likely to be occupied by low-income workers or to be experiencing gentrification and the return of young professionals.

Ethnic neighborhoods: Many cities of Western Europe have less distinct ethnic neighborhoods compared to cities of North America; ethnic neighborhoods of Western European cities are more likely to be found in suburban margins rather than in inner city neighborhoods (zones in transition), as in North American cities; ethnic neighborhoods in North American cities tend to be dynamic, shifting location as the economic circumstances of the immigrants change; neighborhoods of Western European cities tend to be more static.

Student response earns 2 of the following points:

Describe the similarities and differences in the spatial organization of cities in Western Europe and North America in terms of the following aspects. (2 points for each aspect. Discussion MUST include similarities and differences in BOTH Western Europe and North America. 1 point is awarded for EACH area in the discussion.)

Ethnic neighborhoods: Many cities of Western Europe have less distinct ethnic neighborhoods compared to cities of North America; ethnic neighborhoods of Western European cities are more likely to be found in suburban margins rather than in inner city neighborhoods (zones in transition), as in North American cities; ethnic neighborhoods in North American cities tend to be dynamic, shifting location as the economic circumstances of the immigrants change; neighborhoods of Western European cities tend to be more static.