



West Texas A&M University

BI Roadmap Template – Final Project

Housing Affordability

Date: July 2021

Author(s): Megan Moore

Sponsor(s): CIDM 5310 – Dr. Babb

TABLE OF CONTENTS

BI ROADMAP - SUMMARY	4
BI RELEASE:	5
TIMEFRAME	5
KEY DELIVERABLES.....	5
• Business Deliverables.....	5
• Data Deliverables	5
• Sourcing Deliverables	5
• Technology Deliverables	5
SPONSOR(S)	5
• Business Executives(s).....	5
• Business Group(s).....	5
• IT Executive (if applies).....	5
BUSINESS CONSTITUENCY	5
BUSINESS PROCESSES	6
BUSINESS APPLICATIONS.....	6
DATA SUBJECTS	6
SOURCE SYSTEMS	6
SERVICE LEVEL AGREEMENTS (SLAs).....	6
• Data Distribution	6
• Source Systems' Access	6
• Data Quality	6
• Data History & Retention.....	6
APPLICATIONS RETIRED	6
• IT Applications.....	6
TECHNOLOGY REQUIRED.....	7
• Existing.....	7
• New	7
BUDGET & STAFFING	7
• Budget	7
• Staffing	7
PROJECT TEAM (IT & BUSINESS)	7
• Business Project Leader.....	7
• IT Project Leader.....	7
• Other Sub-Team Leaders.....	7
• # Resources (FTEs).....	7
PARTICIPATING RESOURCES	8
• Business.....	8
• IT.....	8

• External	8
APPROVALS.....	8
APPENDIX.....	8

BI ROADMAP - SUMMARY

Table 1: BI Roadmap Highlights

Project Release	N	N + 1	N + 2	N + 3
Timeframe	Current summer semester	Current summer semester	Would need further time past summer semester	Future state
Key Deliverables	datasets	Functional query code	dashboard	Enhanced dashboard
Business Sponsor(s)	IT	HUD	Government agencies	analysts
Business Constituency	students	researchers	executives	Government, housing and infrastructure planning
Business Processes	Data collection process	Poverty and income rate process	Housing affordability process	
Business Applications				
Data Subjects				
Source Systems	Business applications	Internal sources	External sources	
Service Level Agreements (SLAs)	Data quality	Access management	Data distribution	Data history and retention
Applications Retired	None at this time			
Technology Required	Software for data collection	Hardware for storage and access		
Budget Allocation	capital	labor	staffing	
Project Team (IT & Business)	Business project leader	IT project loeader	Stakeholders and decision makers	
Participating Resources (outside of direct project team)	Program management teams	financials	External experts	

BI RELEASE: [INITIAL RELEASE]

Timeframe

Start: Available data up to 2013 is currently able to be accessed and begin data review. Enhancements can be made at any time to pull additional data metrics for answering further questions.

Finish: Tentatively never ending. These studies could continually be enhanced and expanded to review more data inputs and enable deeper insights over time. Releases or updates would be continuous.

Key Deliverables

- **Business Deliverables** - purpose of these datasets is to provide housing analysts with consistent measures of affordability and burdens over a long period.
- **Data Deliverables** - data collection done by the government to see the factors of housing and rental cost going up and down.
- **Sourcing Deliverables** - The datasets are based on the American Housing Survey (AHS) national files from 1985 through 2013.
- **Technology Deliverables** – Data sources involved are the HUD and American Housing Survey AHS.

Other deliverables could include Business requirement document, Functional specification document which includes functional and nonfunctional requirements, use case document, user stories, Wireframes, Process flow diagrams, data dictionary, As is model, To-be model.

Also documentation for strategies and guiding principles for the data integration, data repositories and analytics of the solution sought for the project.

Sponsors

- **Business Executives(s):** HUD, American Housing Survey, Government entities
- **Business Group(s):** Infrastructure companies and analysts
- **IT Executive (if applies):** HADS system owner

Business Constituency

Consumers of a working dashboard: analysts working for the AHS or HUD needing to determine factors which may correlate to house ownership compared to renting.

Business Processes

In order to continue to update a working dashboard, further data collection would need to be done on an annual basis.

Business Applications

Examples of applications: Income, Purchase, Sales, Poverty thresholds, Project, etc. These applications are not built on features.

Data Subjects

Documentation of the chosen data source channels. These should include any types of channels, whether it is a stakeholder, analytics of the industry in general, or the information from your employees and departments. Examples of such channels may be Google Analytics, CRM, ERP, etc.

Source Systems

Would reference any new data sources along existing data sources which include business applications, internal sources, external sources, etc.

- Data sources
- ETL (Extract, Transform, Load) or data integration tools
- Data warehouse
- Online analytical processing cubes
- Data marts
- Reporting (BI) tools

Service Level Agreements (SLAs)

- Data Distribution
- Source Systems' Access – keep limited to key identified individuals so as not to corrupt data integrity
- Data Quality – data reviewed and screened for obvious outliers or incorrectly entered values
- Data History and Retention – all years data to be kept and stored in order to obtain history trend lines

Applications Retired

- IT Applications – None at this time

Technology Required

- **Existing:** all data already compiled from 2013 and earlier along with the systems these items are located on and maintained with.
- **New:** Newer data sets after 2013 that need to be acquired and implemented into the HADS website for the HUD.

Budget and Staffing

- Budget
 - Capital: resources required to annually obtain and store housing data.
 - Labor
 - Internal Labor: headcount available to handle data collection, processing, and review. Could involve data analytics individuals if data is used to build dashboards.
 - External Labor – Consulting and Services: Any professional services which could be reached out to for insights and research in how the data could be scaled for impact across areas.
 - Expenses, not Labor: software or hardware costs, networking, IT related costs.
 - Staffing
 - (Direct) Project Team
 - Non-Direct Project Resources
 - Internal Labor
 - External Labor – Consulting and Services
 - Business participants and stakeholders

Project Team (IT and Business)

- Business Project Leader
- IT Project Leader
- Other Sub-Team Leaders
- Internal Resources and External Resources

Participating Resources

- Business: any financials, program management
- IT: data storage and interactive dashboards
- External: experts in Housing related metrics to consult and review accuracy of collected data for outliers or points of interest.

APPROVALS

Title	Name	Approval Date
Business Project Leader		
IT Project Leader		
Process Owner		
Additional Decision Makers		
Additional Stakeholders		

APPENDIX

Table 2: BI Roadmap - Release Details

Project Release	1.0	2.0	3.0	> 3.0
Timeframe				
Key Deliverables				
Business Sponsor(s) <ul style="list-style-type: none">• Business Executives(s)• Business Group(s)• IT Executive (if applies)				
Business Constituency				
Business Processes <ul style="list-style-type: none">• Used with• Embedded in				

Project Release	1.0	2.0	3.0	> 3.0
Business Applications <ul style="list-style-type: none"> • Used with • Exchange data with 				
Data Subjects				
Source Systems <ul style="list-style-type: none"> • New Sources • Existing Sources Includes: <ul style="list-style-type: none"> • Business Applications • External Sources • Other Sources 				
SLAs <ul style="list-style-type: none"> • Query Performance • Analytical Access • Data Distribution • Source Systems' Access • Data Quality • Data History & Retention • Other 				
Applications Retired <ul style="list-style-type: none"> • IT Applications • Data Shadow Systems 				
Technology Required <ul style="list-style-type: none"> • Existing • New 				
Budget Allocation <ul style="list-style-type: none"> • Capital • Labor <ul style="list-style-type: none"> ○ Internal ○ External • Expenses, not Labor 				
Project Team (IT & Business) <ul style="list-style-type: none"> • Business Project Leader • IT Project Leader • Other Sub-Team Leaders 				

Project Release	1.0	2.0	3.0	> 3.0
<ul style="list-style-type: none"> • # Resources (FTEs) <ul style="list-style-type: none"> ○ Internal ○ External 				
Participating Resources (outside of direct project team) <ul style="list-style-type: none"> • Business • IT • External 				