



sightlines

ROPA

New Mexico State University

Presenters: Nate Pramuk & Marty Sacks

November 2015

- Wellesley College
- Wesleyan University
- West Chester University
- West Liberty University
- West Virginia Institute of Technology
- West Virginia School of Osteopathic Medicine
- West Virginia State University
- West Virginia University
- Western Connecticut State University
- Western Oregon University
- Westfield State University
- Wheaton College
- Widener University
- Williams College
- Williston Northampton School
- Worcester Polytechnic Institute
- Worcester State University
- Xavier University
- Yale University
- Yeshiva University

Today's Agenda

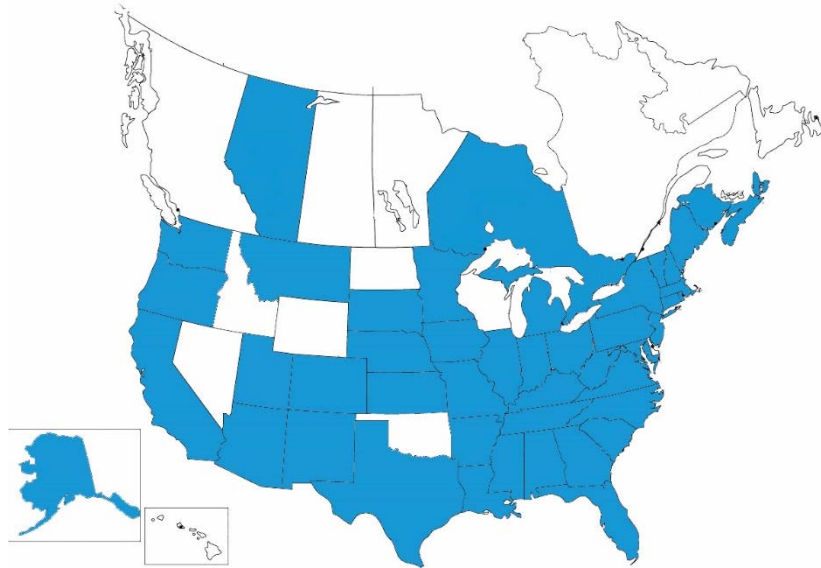


- 1 Sightlines Partners and ROPA Model
- 2 Space Profile & Demographics
- 3 Asset Value Change
- 4 Operational Effectiveness
- 5 Service & Peer Groups
- 6 Follow-up Items and Timeline

Who Partners with Sightlines?



Robust membership includes colleges, universities, consortiums and state systems



Serving the Nation's Leading Institutions:

- **70% of the Top 20 Colleges***
- **75% of the Top 20 Universities***
- **34 Flagship State Universities**
- **13 of the 14 Big 10 Institutions**
- **9 of the 12 Ivy Plus Institutions**
- **8 of 13 Selective Liberal Arts Colleges**

* U.S. News Rankings

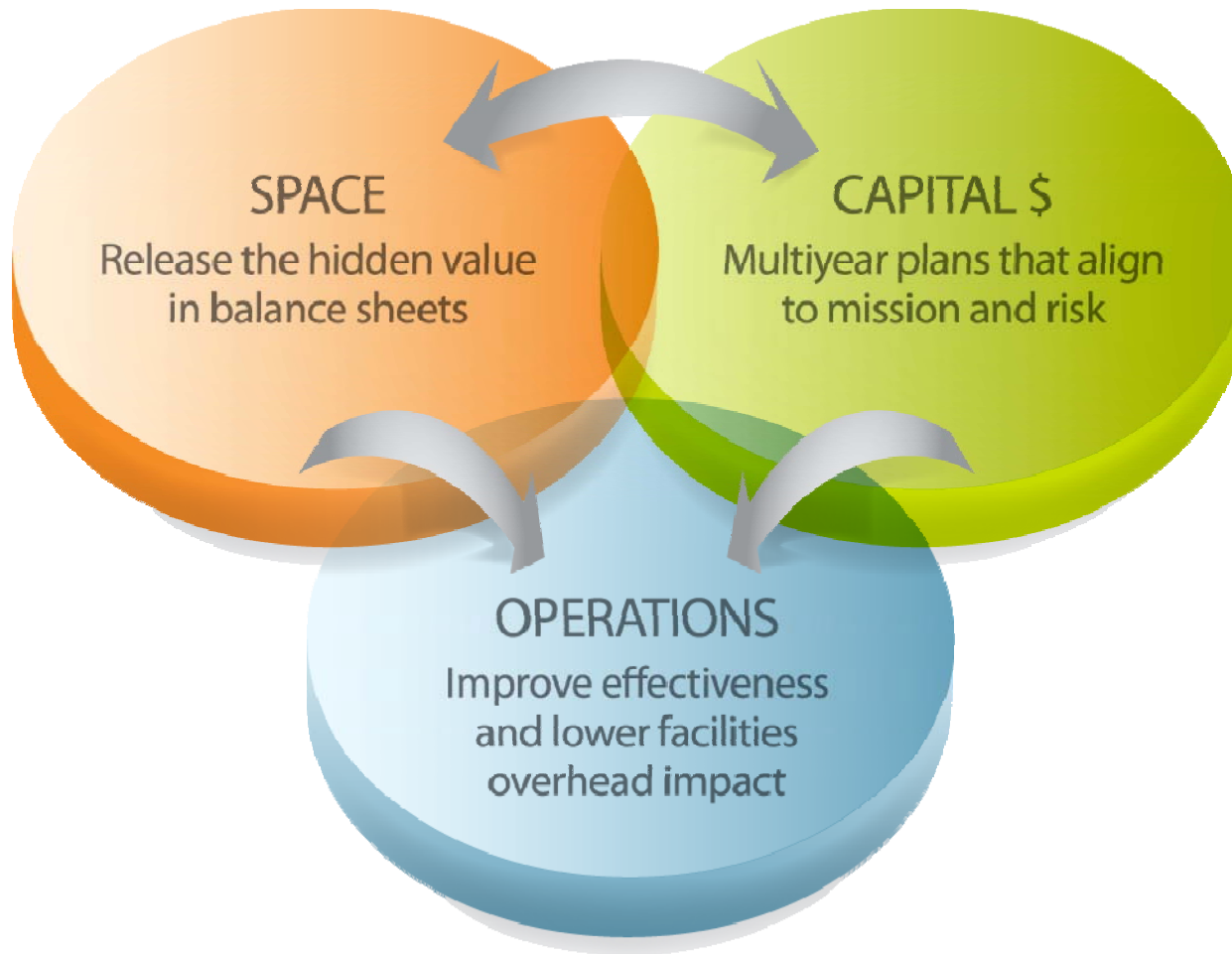
Sightlines is proud to announce that:

- 450 colleges and universities are Sightlines clients including over 325 ROPA members.
- 93% of ROPA members renewed in 2014
- We have clients in 42 states, the District of Columbia and four Canadian provinces
- More than 100 new institutions became Sightlines members since 2013

Sightlines advises state systems in:

- Alaska
- California
- Connecticut
- Hawaii
- Maine
- Massachusetts
- Minnesota
- Mississippi
- Missouri
- Nebraska
- New Hampshire
- New Jersey
- Pennsylvania
- Texas
- West Virginia

ROPA “Beyond Benchmarking”



This Approach Develops Solutions that Optimize Resources, Increase Investments & Lower Costs

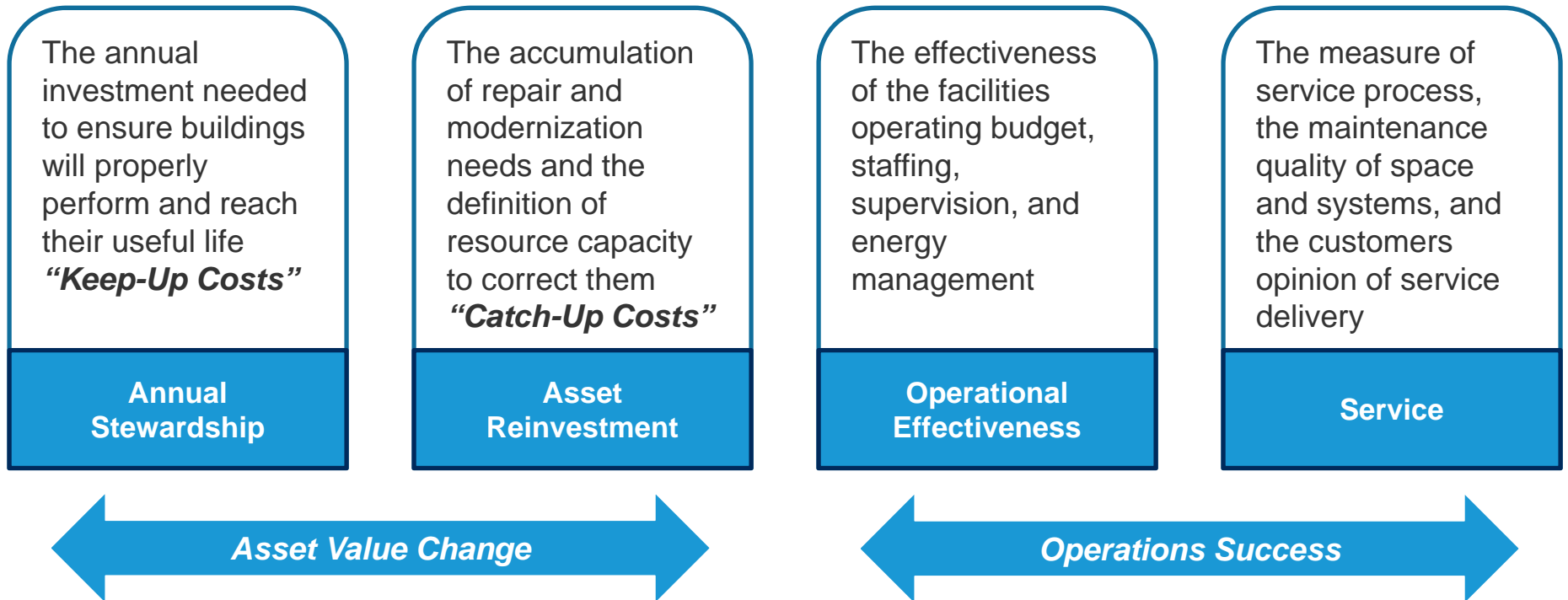
Comprehensive Facilities Intelligence Solutions



A Vocabulary for Measurement



The Return on Physical Assets – ROPASM

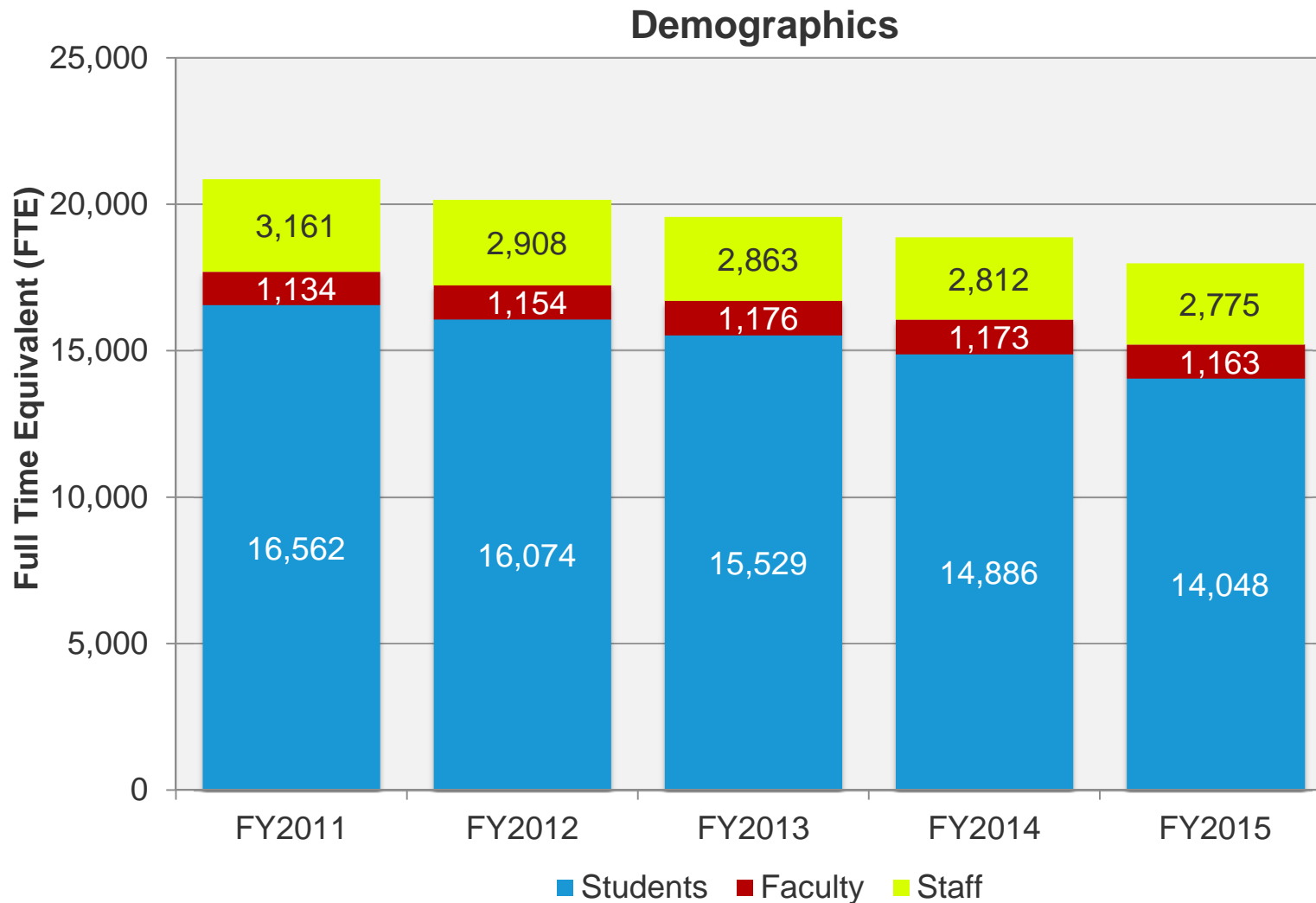


Space Profile & Demographics

Campus Demographics



Number of campus users has declined 14% since FY11



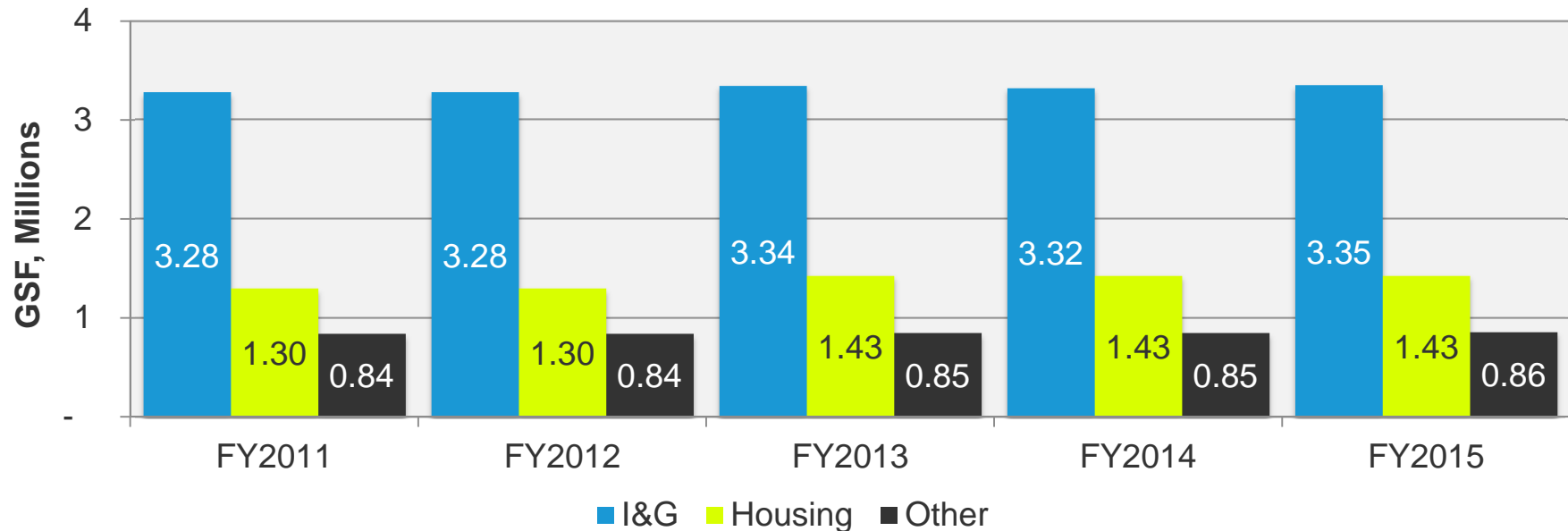
Sources: New Mexico State University Fall 2014 Factbook
New Mexico State University Quick Facts 2014-2015

Space Profile – Longitudinal View



I&G GSF increased by approximately 30k in FY15; No change in Housing GSF

NMSU: Las Cruces Campus GSF



I&G
3.35M GSF

Pete Dominici Hall reno: +24k GSF
 Corona SW Ctr Rangeland.: +3k GSF
 PSL Modular Building: +2k GSF
 Leyendecker Field Rsch Lab: +600 GSF

Housing
1.43M GSF
 [No Change]

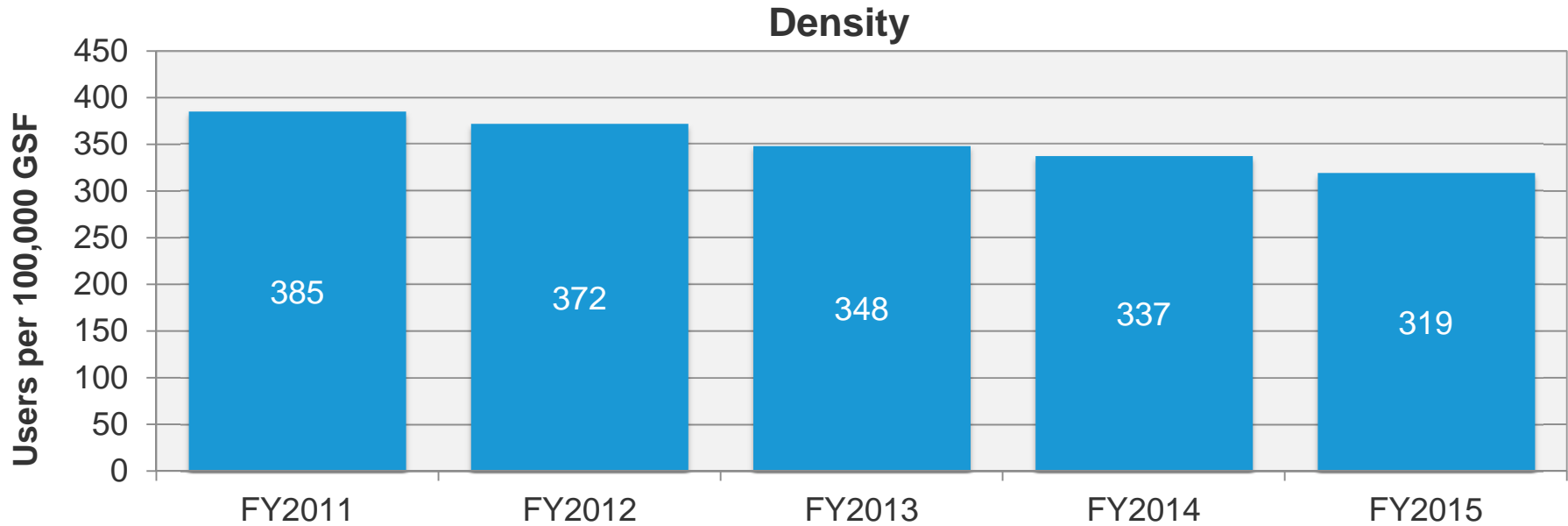
Other/ Excluded
860k GSF

Satellite Chilled Water Plant: +11k GSF
 Spiritual Center: +2k GSF

Campus Density

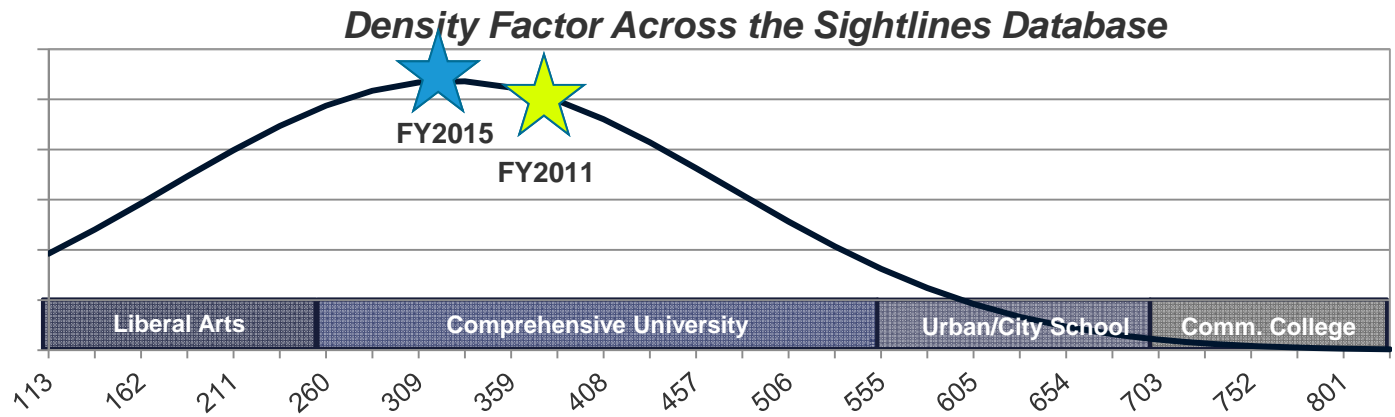


Density has decreased by 17% since FY11



Density impacts:

- Wear and tear on space
- Custodial operations
- Energy demand



Asset Value Change

Capital Projects Base Data



I&G: Include only F&S projects for Las Cruces campus

Recurring Capital: Copy of BRR DATA FOR SIGHTLINES PROJECT FY05 - FY15

ACCOUNT_INDEX	2015	Project Description	Building Name
112140	126,814.49	AES- BLDG RENEWAL AND REPLACEMENT	GERALD THOMAS HALL
115895	306,399.91	FY10 EC I STUCCO AND EXTERIOR	ENGINEERING COMPLEX I
116199	32,748.24	LANDFILL AND GROUNDWATER MONITORING	INFRASTRUCTURE OTHER LANDSCAPING

One-Time Capital: Copy of July 2015 Bond Funding Master List

Responsibl	Inde	Account	Expensed as of 2015	Expensed as of 2014	Difference
F&S	121395	13 GOB UNDERGRAD LEARNING CENTER	15,117,752.84	1,696,473.64	13,421,279.20
F&S	125474	15GOB PDCREF JETT HALL INFRA	804,813.86	-	804,813.86
F&S	125475	15GOB PDCREF RENTFROW INFRA	68,777.57	-	68,777.57

- No new FY15 revenue bond spending pertaining to I&G or Housing

Housing: No one-time capital investment in FY15

Recurring Capital: 4. Facilities R&R Projects FY15 Summary (with Index No) - 10.27.15

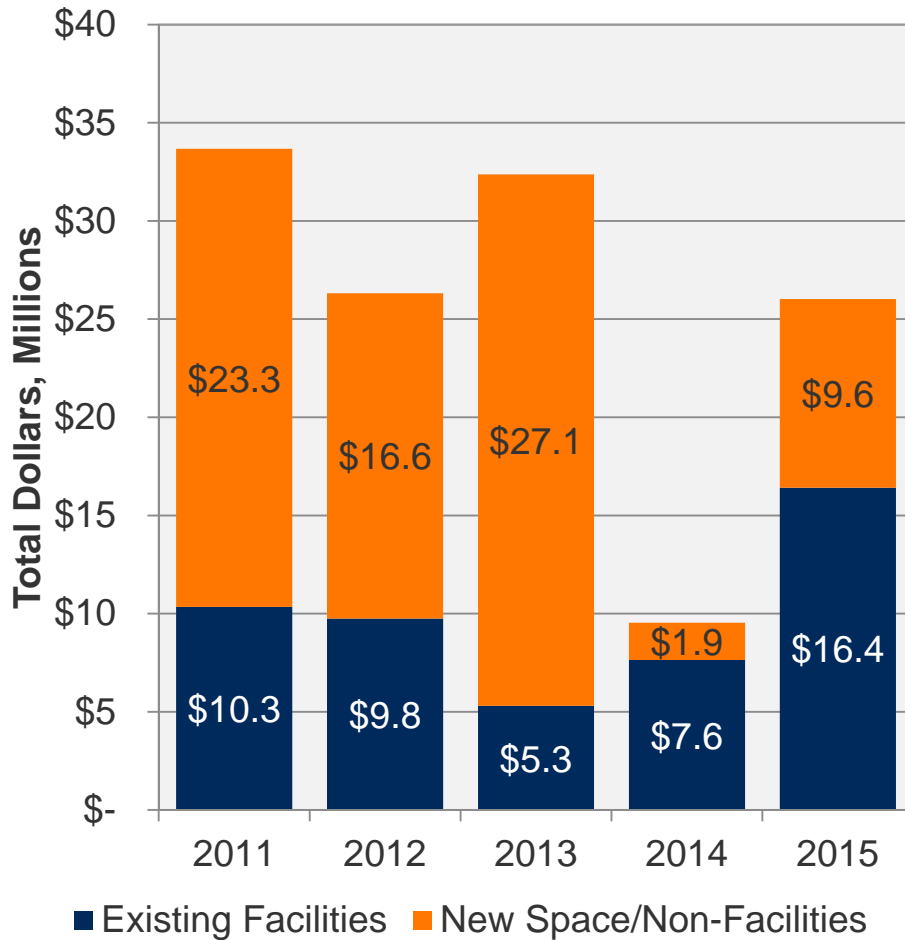
Facility	Description	Amou	Year
Cervantes	Furniture, mattresses and equipment	1,198	FY15
Cervantes	HVAC equipment and repairs	5,496	FY15
Cervantes	Landscaping and exterior improvemen	3,495	FY15

Total Project Spending

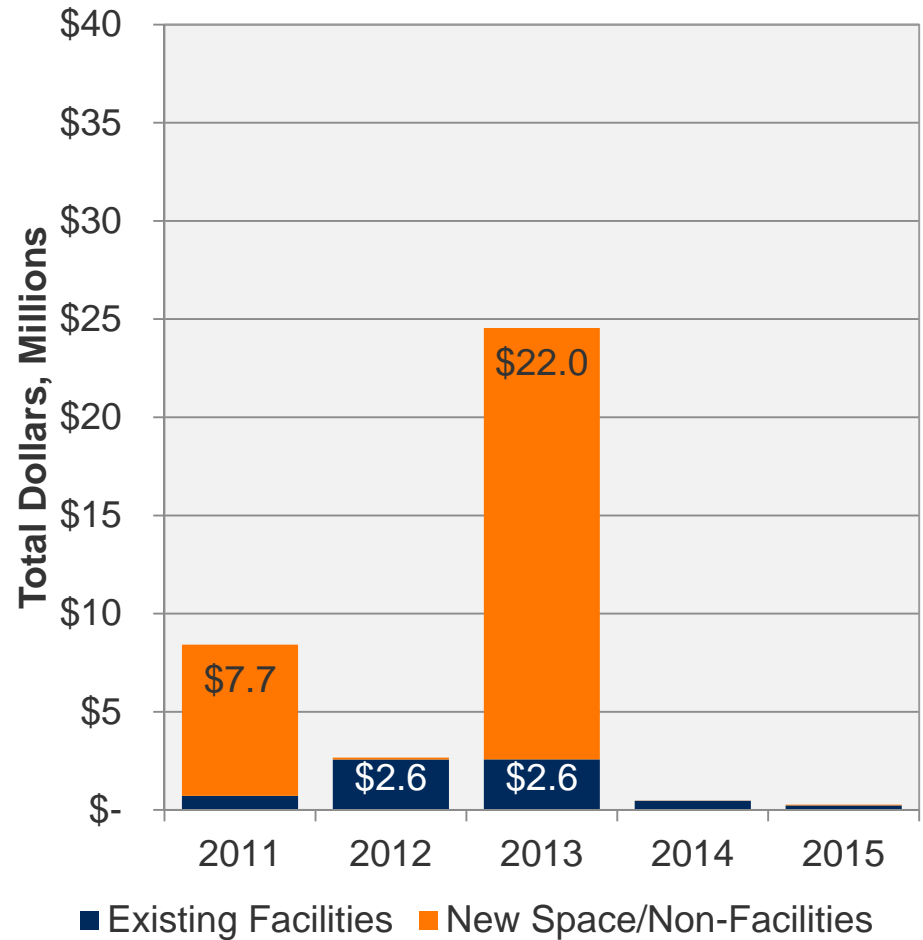


Both into existing space and new space/non-facilities

I&G Total Capital Spending



Housing Total Capital Spending



Most Expensive I&G Projects in FY15



All existing space projects over \$200k

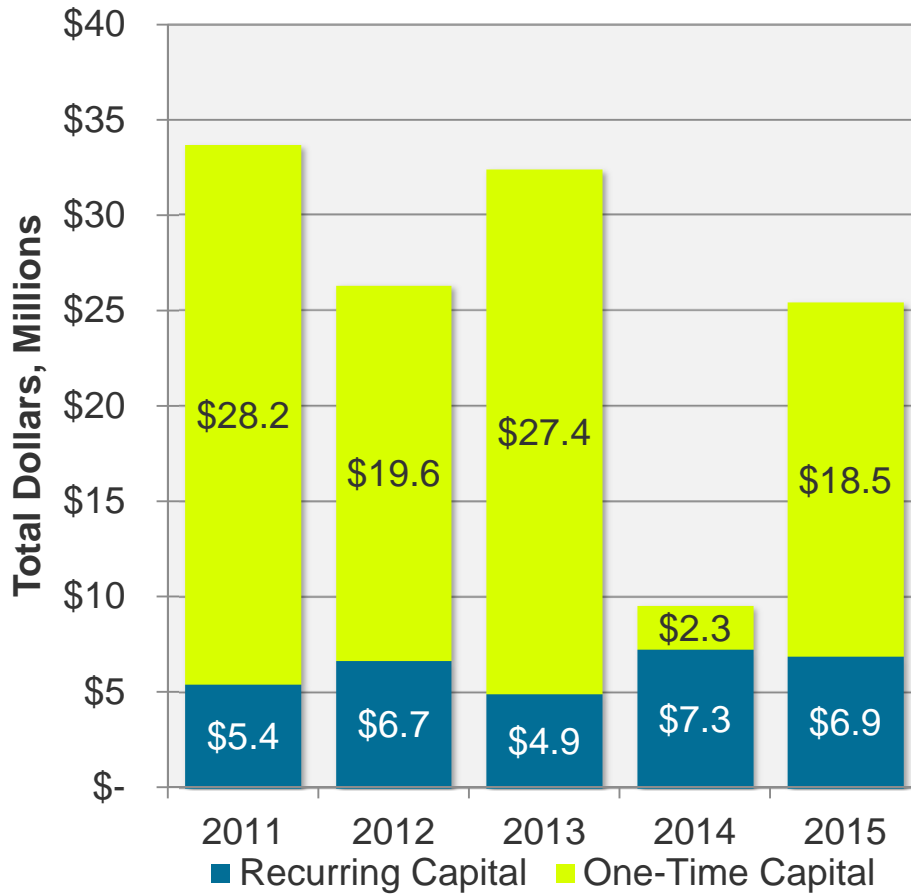
Project Name	Acct #	Actual Spent	Package	Mixed Package Percents	Inst Funding Source
13 GOB UNDERGRAD LEARNING CENTER	121395	\$2,013,191.88	Building Systems	0.15	Bonds
13 GOB UNDERGRAD LEARNING CENTER	121395	\$2,013,191.88	Space Renewal	0.15	Bonds
13 GOB UNDERGRAD LEARNING CENTER	121395	\$1,342,127.92	Envelope	0.1	Bonds
15GOB PDCREF JETT HALL INFRA	125474	\$804,813.86	Utility Infrastructure		Bonds
13 GOB UNDERGRAD LEARNING CENTER	121395	\$671,063.96	Grounds Infrastructure	0.05	Bonds
FY15 CAMPUS WIDE MAJOR MAINTENANCE	124401	\$595,060.58	Utility Infrastructure		BRR
FY15 CAMPUS WIDE MAJOR MAINTENANCE	124401	\$540,262.53	Space Renewal		BRR
14STB FE AQUACULTURE 14-2128	124113	\$540,262.53	Space Renewal		Bonds
12STB PDRCEFE HERSHEL ZOHNS & BRANSON	120379	\$508,307.31	Building Systems	0.2	Bonds
12STB PDRCEFE HERSHEL ZOHNS & BRANSON	120379	\$508,307.31	Space Renewal	0.2	Bonds
13STB PDCXRFEI HARDMAN ELEC/INFRA	123257	\$457,197.11	Utility Infrastructure		Bonds
12STB PDRCEFE HERSHEL ZOHNS & BRANSON	120379	\$381,230.48	Envelope	0.15	Bonds
FY15 F&S TUNNEL SYS REPAIR	124378	\$321,455.59	Utility Infrastructure		BRR
FY10 EC I STUCCO AND EXTERIOR	115895	\$306,399.91	Envelope		BRR
FY14 DEFERRED MAINTENANCE NC	122860	\$241,176.49	Building Systems		BRR
FY15 RENTFROW HVAC IMPROVEMENT	124706	\$221,723.84	Building Systems		BRR

Existing Space Spending



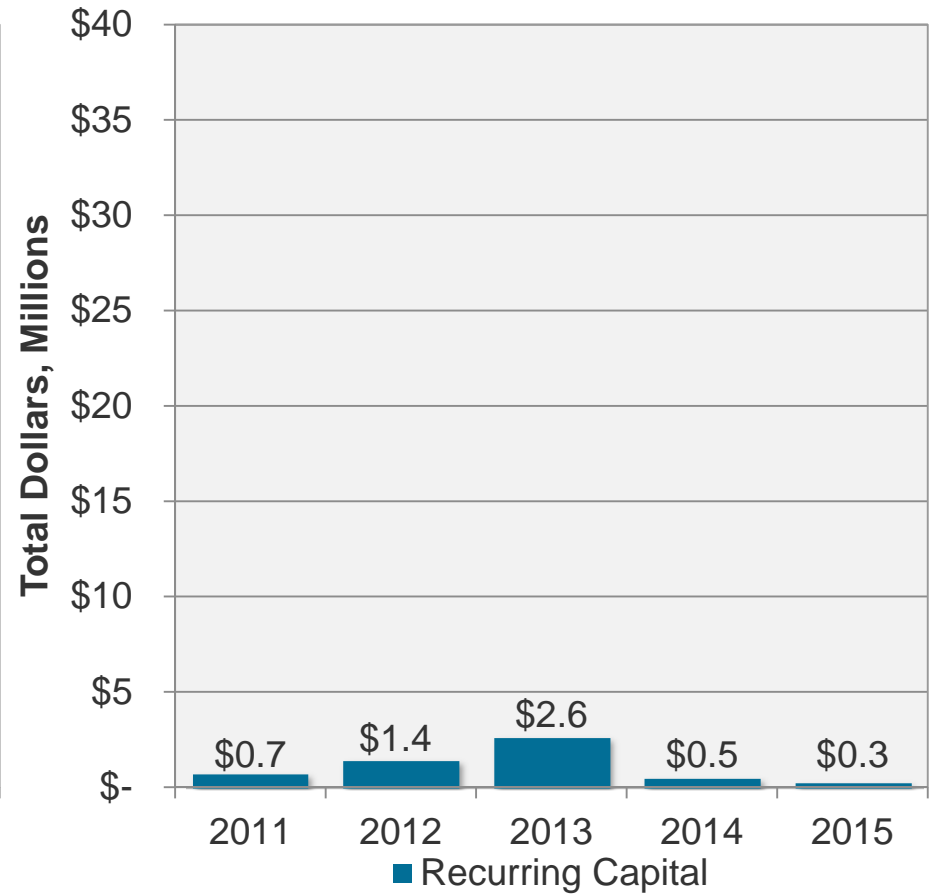
By funding source

I&G Existing Space Spending



Recurring Capital Sources: BRR
 One-Time Capital Sources: Bonds

Housing Existing Space Spending



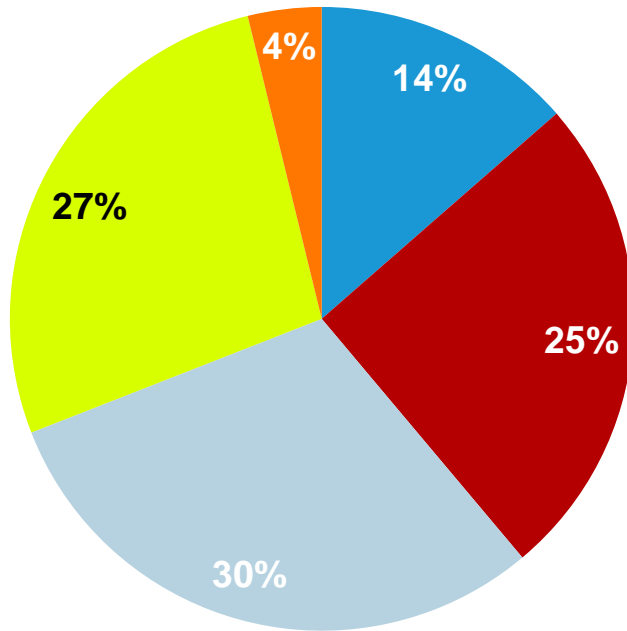
Recurring Capital Sources: R&R

Existing Space Spending Mix

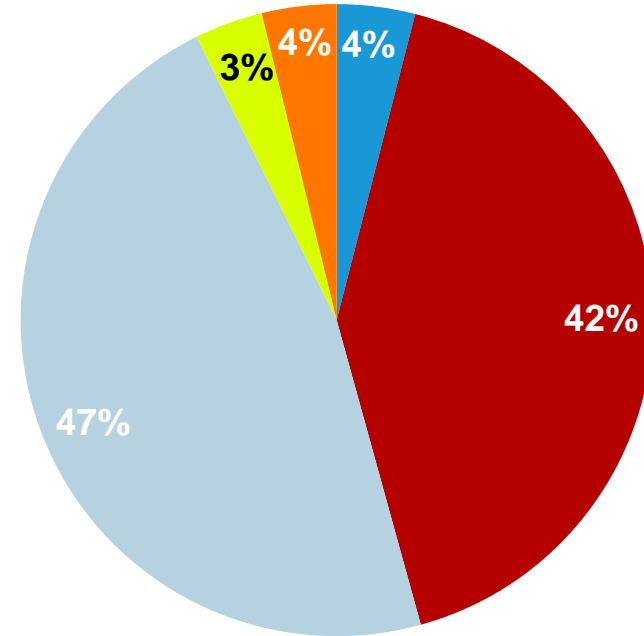


Space Renewal makes up the largest % of spending for both I&G and Housing

I&G Capital Spending Mix



Housing Capital Spending Mix



■ Envelope ■ Building Systems ■ Space Renewal ■ Infrastructure ■ Safety/Code

Operations

Operating Budget Base Data



I&G: FI-U277 June 2015 072015 Period 12

ORGANIZATION	ACCOUNT	ADJUSTED BUDGET	Y-T-D
500651-FS ADMIN EXP	613000-NON EXEMPT POOL	13,572.00	0.00
500651-FS ADMIN EXP	613100-ADMIN SUP REGULAR	0.00	14,048.10
500651-FS ADMIN EXP	614000-EXEMPT SALARY POOL	393,439.00	0.00
500651-FS ADMIN EXP	614100-EXEMPT REGULAR	0.00	393,705.94

3 Part Process:

- 1) Enter people costs & expenses for each shop
- 2) Apply applicable benefits rates from “Fringe Rates 2010-2015.xls” to people costs.
- 3) Utility costs do not get entered. These come from the Energy Profile.

Housing: 3. Financial Data FY15

ACCOUNT NAME	ACCOUNT NUMBER	FY15 TOTAL	FY14 TOTAL
EXPENDITURES			
Utilities - Electric	755100	716,350.96	735,922.26
Utilities - Fuel	755200	75,895.05	71,332.43
Utilities - Sew age & Waste	755400	259,246.08	306,991.65
Utilities - Steam	755600	71,300.83	78,304.83
Utilities - Chilled Water	755700	335,275.94	316,981.38

[FY15](#) | [Res Life FY15](#) | [Summary-Detail](#) | [Summary-Higher Level](#) | [Admin \(102353\)](#) | [Maint. \(102354\)](#)

Utility costs primarily from the “FY15” tab (Acct 755xxx); People Costs and Expenses from Admin & Maint. tabs

Operating Budget – “What You Buy”



FY15 I&G people costs decreased 14%; Total actuals have decreased 13% since FY12

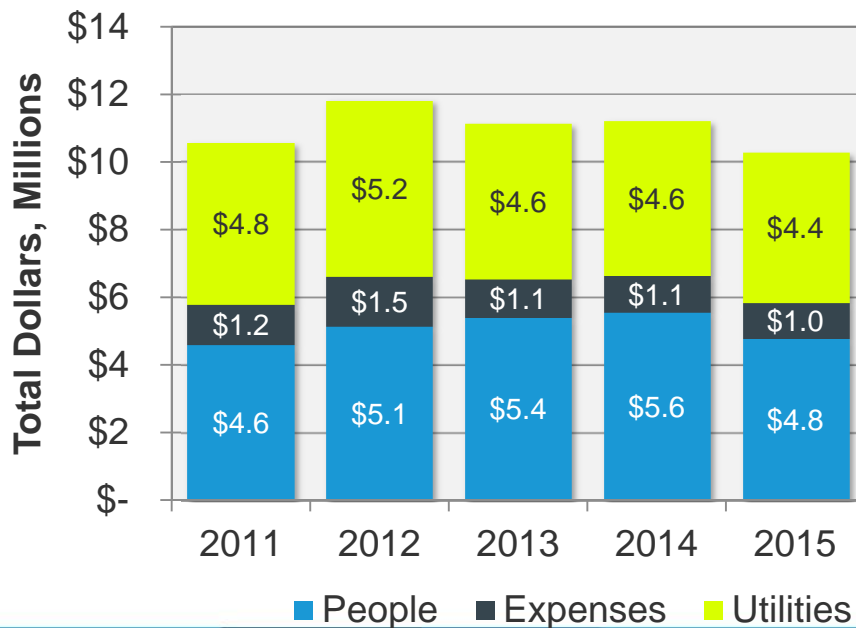
- Housing actuals have decreased 11% since FY11

People
Salaries
Wages
Benefits
Overtime

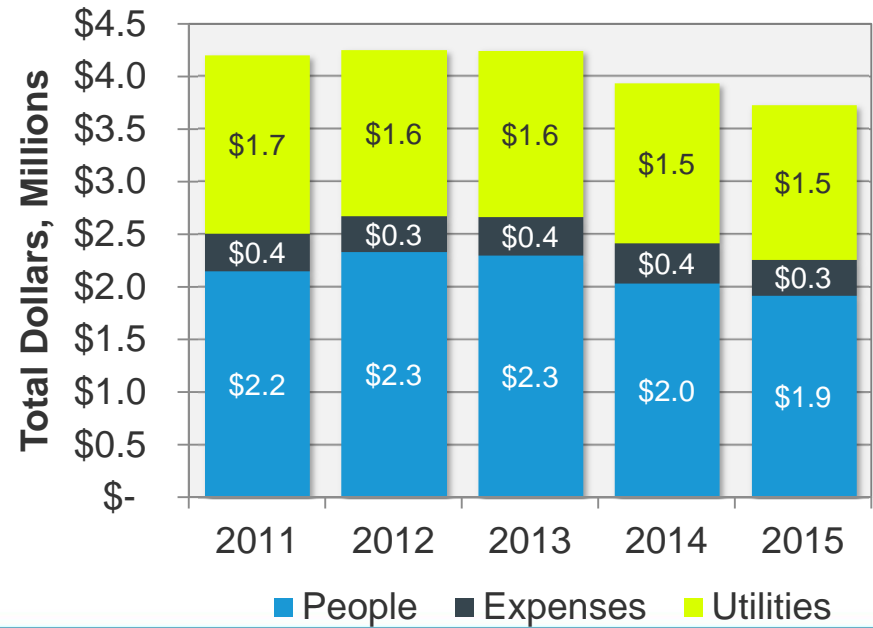
Expenses
Contracted Repairs
Equipment
Office Expenses

Utilities
Fossil
Electric
Water/Sewer
Waste

I&G Operating Actuals



Housing Operating Actuals



Budget Questions



I&G line items with largest decrease in people costs

Category		Facilities				
Campus		New Mexico State Universit	I&G			
ROPA Block		People				
Actual				Fiscal Year		
Account/ Department	Account/ Department Name	Object/ Line Name	2014	2015	Difference	
500701	Elec Exp Rec	External Source Labor	-\$337,940	-\$420,126	-\$82,187	
500771	HVAC Exp Rec	External Source Labor	-\$143,533	-\$410,776	-\$267,243	
500654	Engineering-Supervisor Utilit	Exempt Regular	\$109,344	\$38,804	-\$70,540	
		Exempt Regular	\$591,096	\$393,706	-\$197,390	
		Technical Regular	\$479,465	\$439,609	-\$39,856	
		TECHNICAL TERM	\$100,669	\$69,698	-\$30,971	
benefits-plug-acct	Benefits - Sightlines plug	Benefits - Sightlines plug	\$1,286,868	\$1,193,217	-\$93,651	

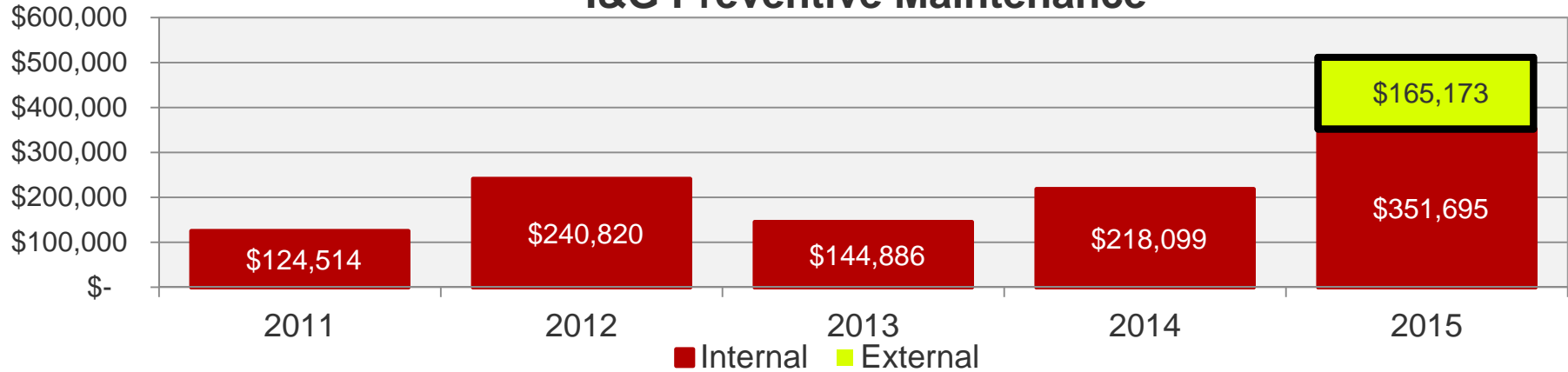
Preventive Maintenance Calculation



I&G: NMSU WO DATA WITH ALL COSTS 2015-09-15 – “Preventive WO Category”

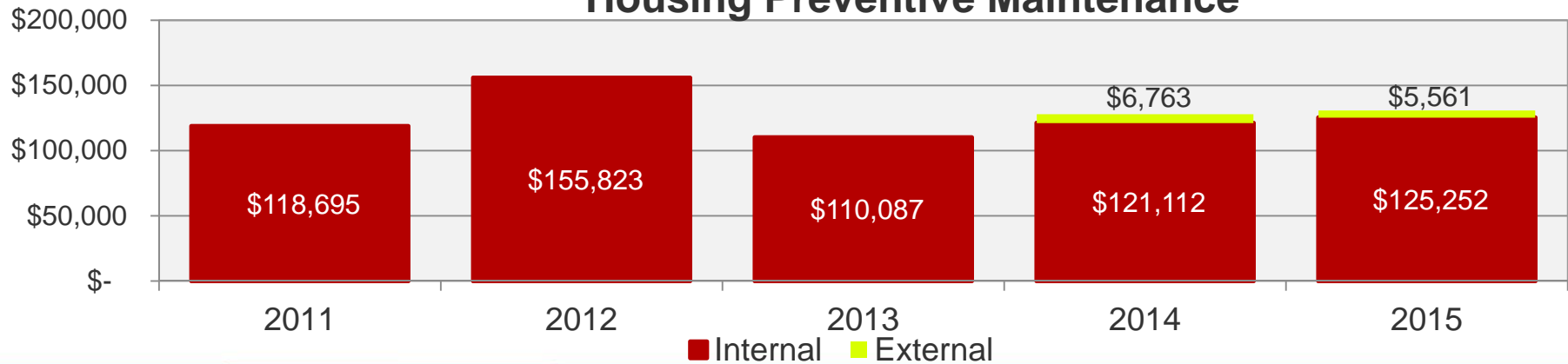
- FY15 Internal PM increased by 61%; External PM captured for the first time in the analysis

I&G Preventive Maintenance



Housing: FY15 planned maint– Filtered work order data from Sharon Kirkpatrick

Housing Preventive Maintenance



Operating Budget – “What You Get”



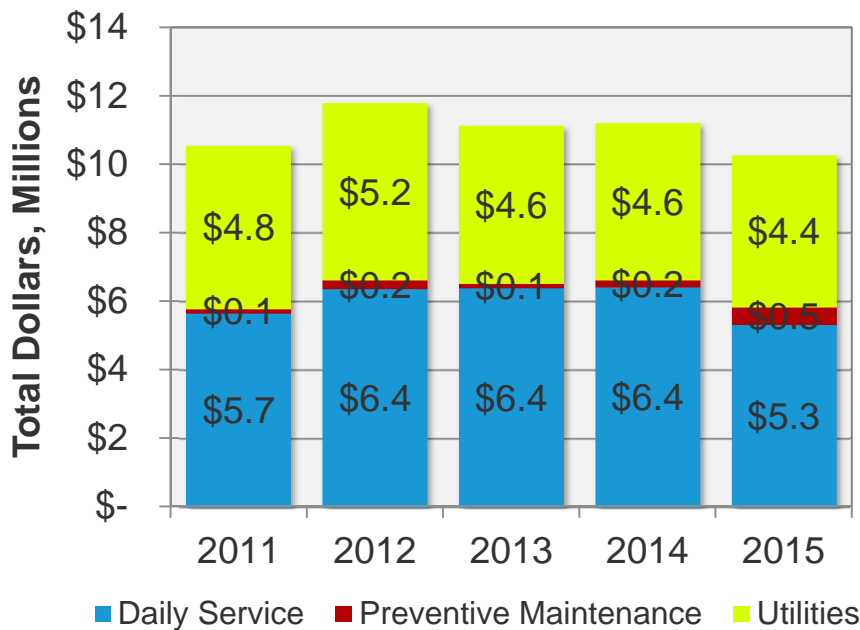
I&G FY15 daily service decreased by 17%; Housing FY15 daily service decreased 7%

Daily Service
All People Costs
Expenses: contracted services, equipment and office expenses

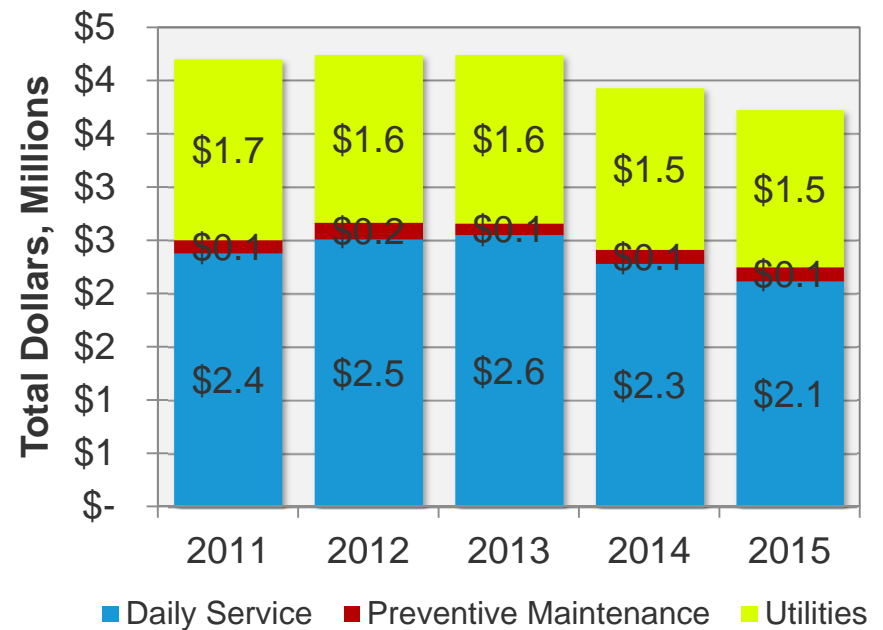
Preventive Maint.
Some Contracted Repairs / Services
PM Work Orders
Budgeted PM Codes

Utilities
Fossil
Electric
Water/Sewer
Waste

I&G Operating Actuals



Housing Operating Actuals



Operating Budget – Normalized



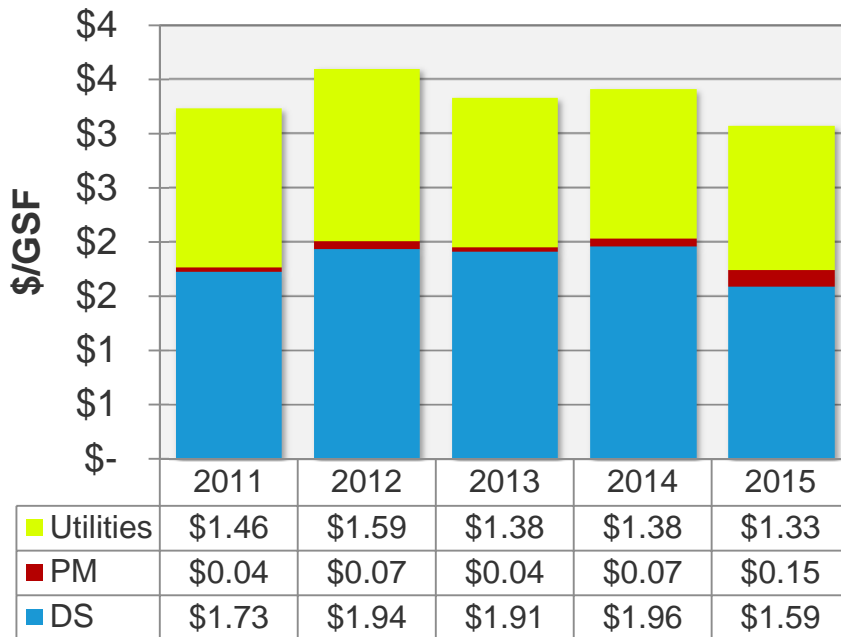
I&G Daily Service costs decreased 19% in FY15; Housing Utilities decreased for 4th straight year

Daily Service
All People Costs
Expenses: contracted services, equipment and office expenses

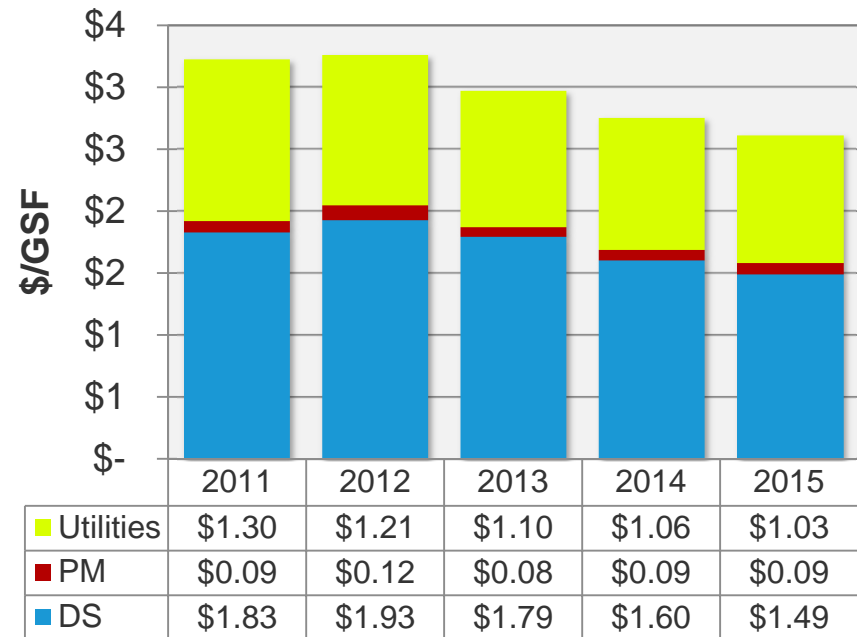
Preventive Maint.
Some Contracted Repairs / Services
PM Work Orders
Budgeted PM Codes

Utilities
Fossil
Electric
Water/Sewer
Waste

I&G Operating Actuals



Housing Operating Actuals



Staffing Base Data



I&G: Copy of BU-POS-149-Bgt Job LD Fill_Vacant (Admin) 09-2015

POSITION_HOME_ORGANIZ	Filled/V	Posn Type	Position Title	Name/ID	No. Months Vacar	Budgeted FTE
FS Access Control (500730)	Filled/Curr	Regular	Locksmith	Angel, Micl	0	1
FS Access Control (500730)	Filled/Curr	Regular	Locksmith	Galey, Dan	0	1
FS Access Control (500730)	Filled/Curr	Regular	Locksmith,Ld	Holguin, Ra	0	1

Housing: 5. Housing Staffing FY15

Position Type	Employee Group	Position Title	Index Description	FTE
Regular	Staff	Assc Dir, Housing/Aux Facs	Maintenance	1.000
Regular	Staff	Asst Dir, Housing Facilities	Maintenance	1.000
Regular	Staff	Custodial Worker, Sr	Maintenance	1.000

Data Processing Steps

- 1) Exclude the following shops: Fire, Vehicle, Waste, Signage, Construction, Environ. Health, Accounting, Project Design, Alarm Services, Architect, Space Management
- 2) Exclude temporary workers and student employees
- 3) Apply Sold Service percentages to capture tradespeople's time spent on work for other departments

Increase in I&G FTEs



FY15

FY14

Row Labels	Sum of Budgeted FTE
FS Custodial Services (500695)	118.5
Custodial Worker (K4002)	77.5
Custodial Worker,Ld (K4003)	7
Custodial Worker,Sr (K4008)	28
Mgr,Recycle/Waste/Custodian (K4083)	0
Supv,Custodian (K4004)	6
FS Mechanical (500770)	20
Facilities Tech (K4019)	8
HVAC Mechanic (K4007)	1
HVAC Mechanic,Ld (K2004)	2
Plumber (K4011)	4
Plumber,Ld (K4056)	2
Steamfitter (K4079)	2
Supv,Skilled Crafts (K4067)	1
FS Facilities Maintenance (500656)	40
Asst Project Manager (K1024)	1
Electrician (K4005)	1
Facilities Coord (K4075)	4
Facilities Tech (K4019)	17
Laborer (K4012)	4
Painter (K4010)	5
Plumber (K4011)	2
Structural Maintenance Tech (K4051)	4
Structural Maintenance Tech,Ld (K3006)	1
Supv,Fac Maint (K4020)	1

Row Labels	Sum of I&G Budgeted FTE
FS Custodial Services (500695)	99.5
Custodial Worker (K4002)	75.5
Custodial Worker,Ld (K4003)	7
Custodial Worker,Sr (K4008)	12
Mgr,Recycle/Waste/Custodian (K4083)	0
Supv,Custodian (K4004)	5
FS Mechanical (500770)	13
Facilities Tech (K4019)	5
HVAC Mechanic (K4007)	2
HVAC Mechanic,Ld (K2004)	2
Steamfitter (K4079)	2
Supv,Skilled Crafts (K4067)	1
Welder (K4053)	1

Grand Total 326.9

Grand Total 286.85

Housing Trades FTE Before Sold Service



FY15 Change in Housing FTEs

	Mech.	Structural	General Trades	Custodial	Grounds
Staff	-	-1 (painter)	-0.1 (laborer)	-	-1.2 (4 laborers)
Supv.	N/A	N/A	-	-	N/A

Sold Service Summary



Percentage of time spent as a daily service operator

- Taken from Projected FY15 FS I&G Budget June Final Close

4 Electricians (500700)

Reimbursable Labor Hours	9,254.25	50%
Non-Reimbursable Labor Hours	9,254.25	50%
Total Labor Hours	18,508.50	100%

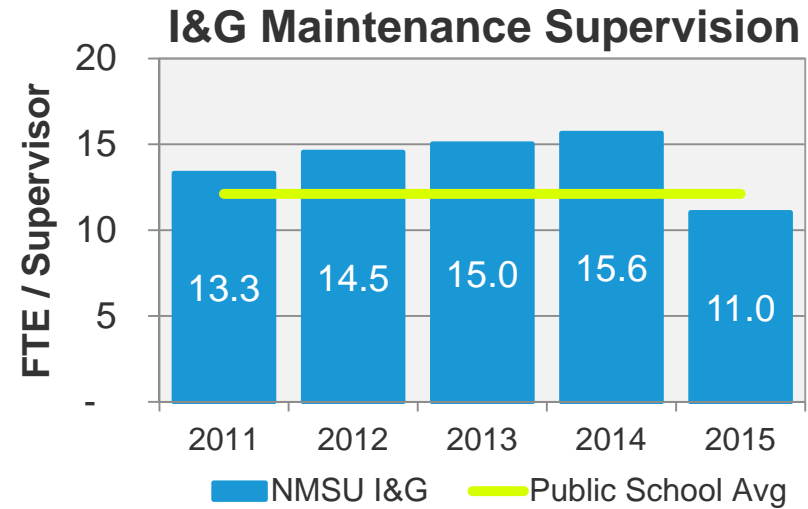
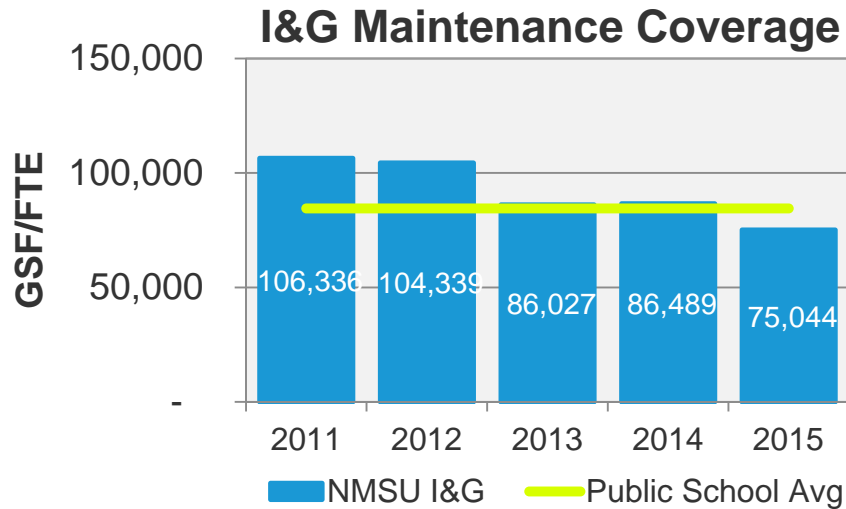
Row Labels	2014	2015
Carpentry	50%	50%
Custodial	99%	99%
Custodial Supervisor	99%	99%
Electrical	50%	50%
General Trades	40%	30%
General Trades Supervisor	100%	100%
Grounds	100%	100%
Grounds Supervisor	100%	100%
HVAC	60%	65%
Locksmith	40%	40%
Mech. Trades Supervisor	44%	44%
Other Mechanical (General)	25%	25%
Other Structural	50%	50%
Painting	60%	50%
Plumbing	40%	40%
Struct. Trades Supervisor	50%	50%

- Apply same percentages to Housing.
- Grounds sold service remains at 100%.

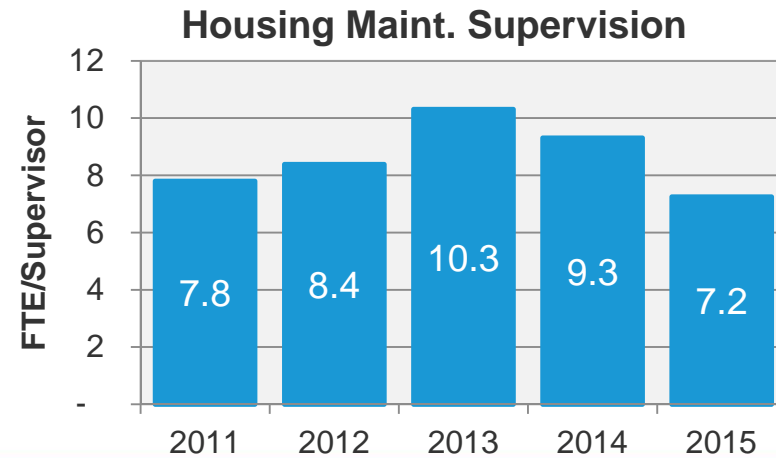
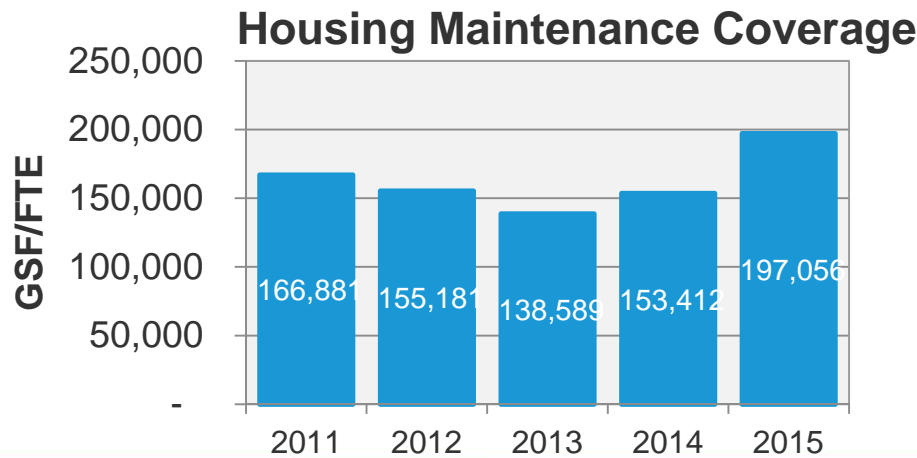
Trades Coverage & Supervision



I&G: Coverage change due to growth in Facilities Maint. shop; New General Trades supv.



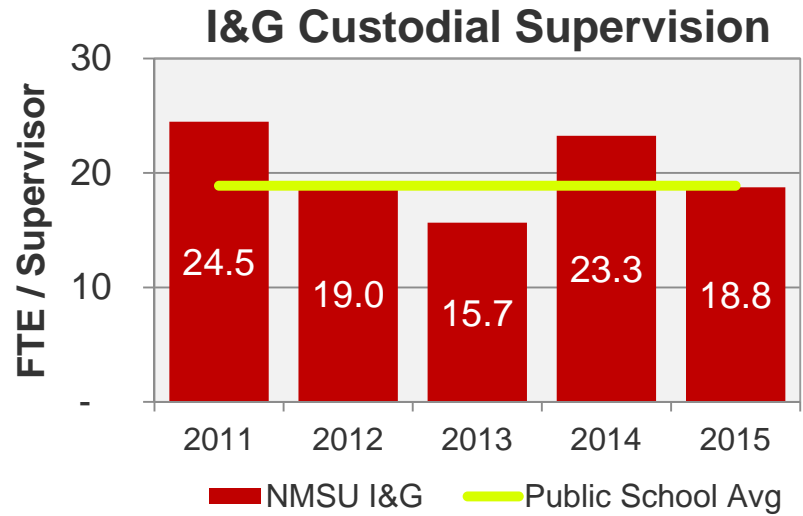
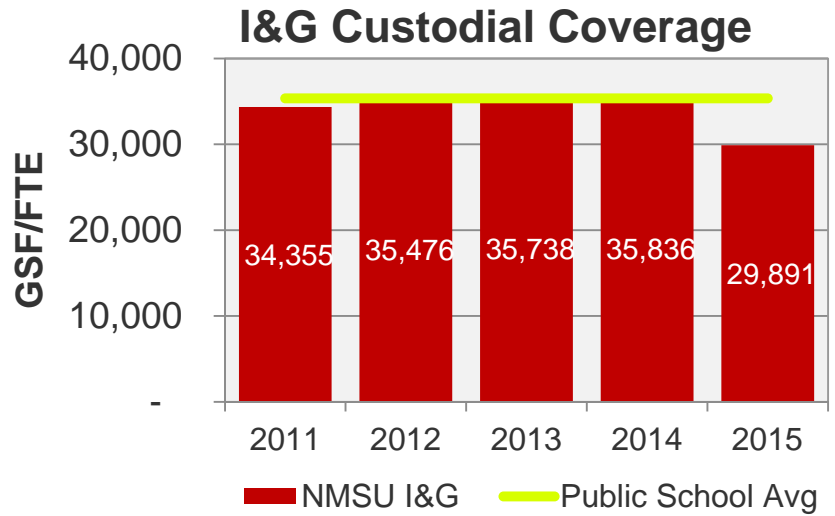
Housing: Decrease in trades FTEs drives changes in coverage and supervision ratios



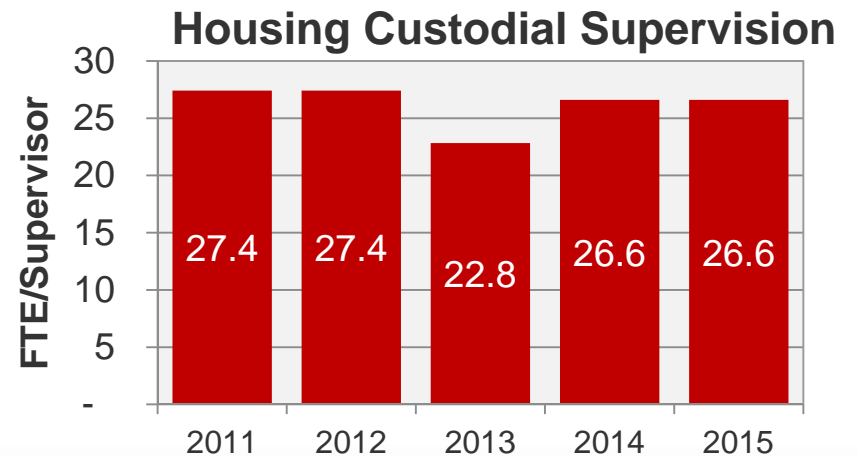
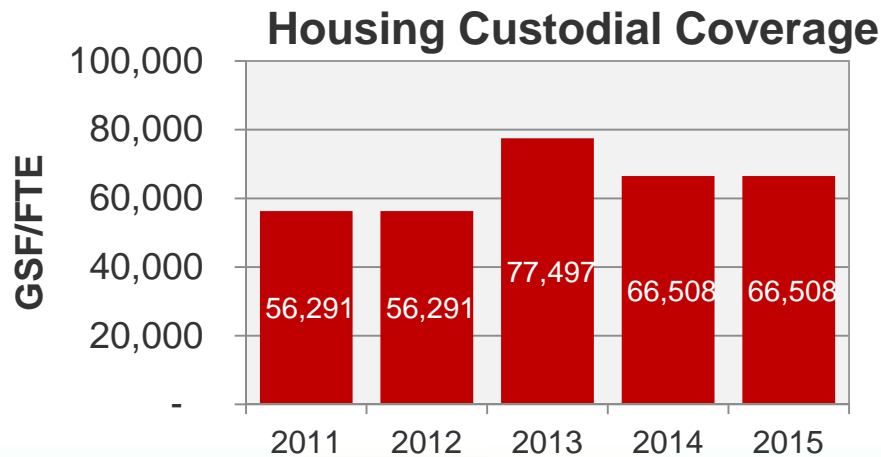
Custodial Coverage & Supervision



I&G: Changes in coverage and supervision driven by large increase in custodial FTEs



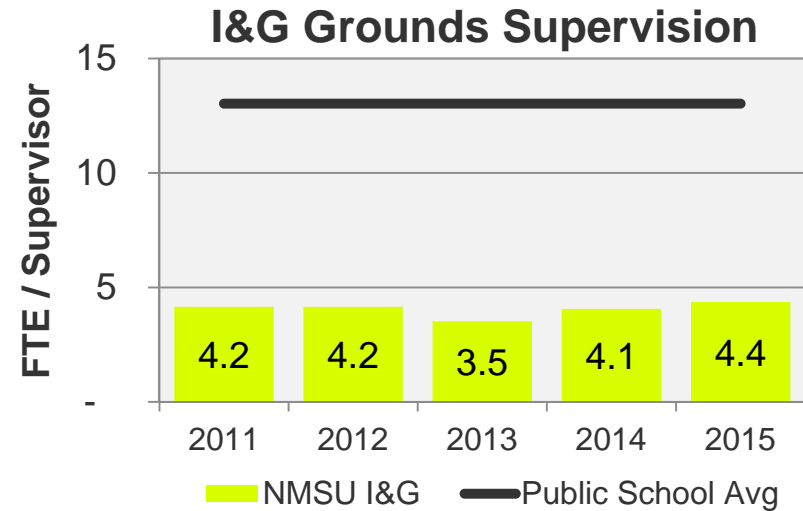
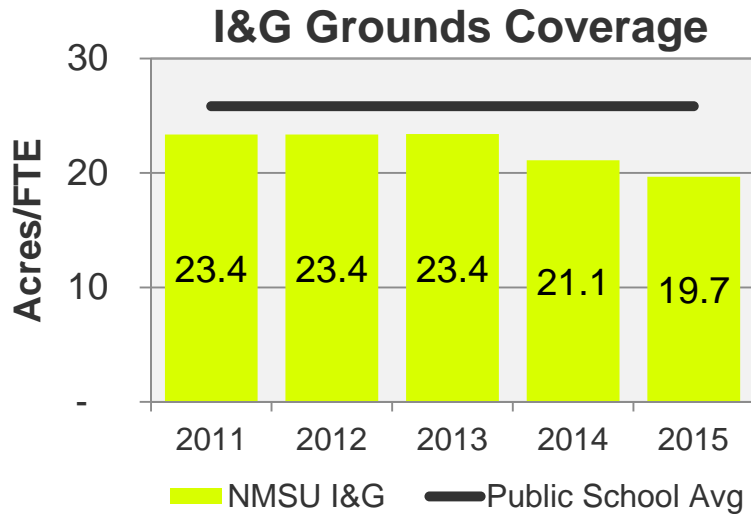
Housing: No change from FY15



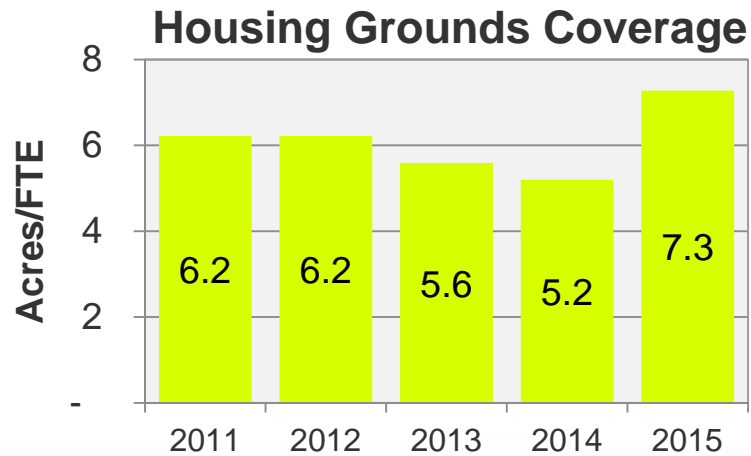
Grounds Coverage & Supervision



I&G: Replaced 2 laborers (0.3 FTE each) with 2 groundskeepers (1 FTE each)



Housing: Coverage change due to decrease of 1.2 FTEs; Supervision not tracked.



I&G Materials Spending



Maintenance materials decreased 11 % after a spike in FY14



Source: Work Order data

Source: Operating Budget

- Custodial Services org,
Clean and Janitor Sup acct

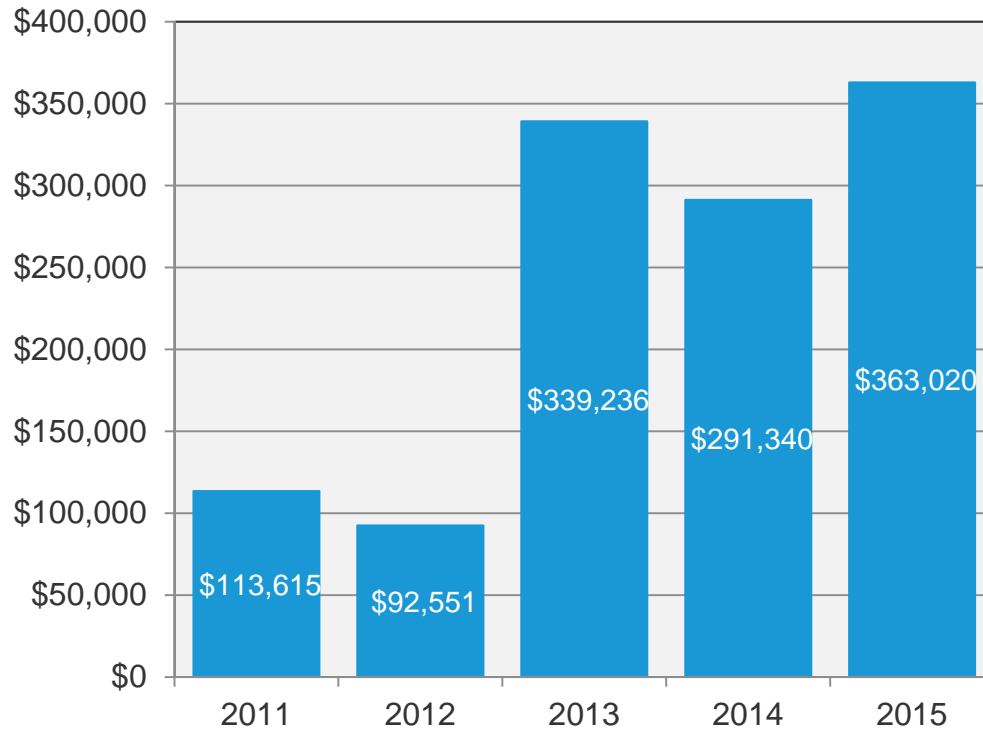
Source: Work Order Data

Housing Materials Spending

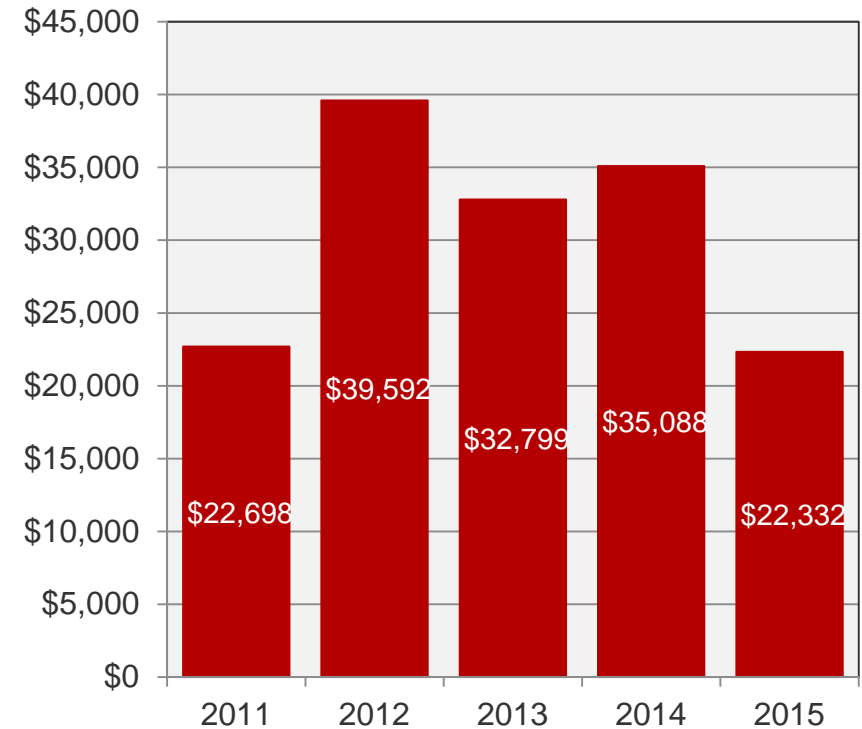


Maintenance materials at highest level since start of analysis

Maintenance Materials



Custodial Materials



Source: Operating Budget, split out by Sharon Kirkpatrick

Source: Operating Budget, split out by Sharon Kirkpatrick

Work Order Data

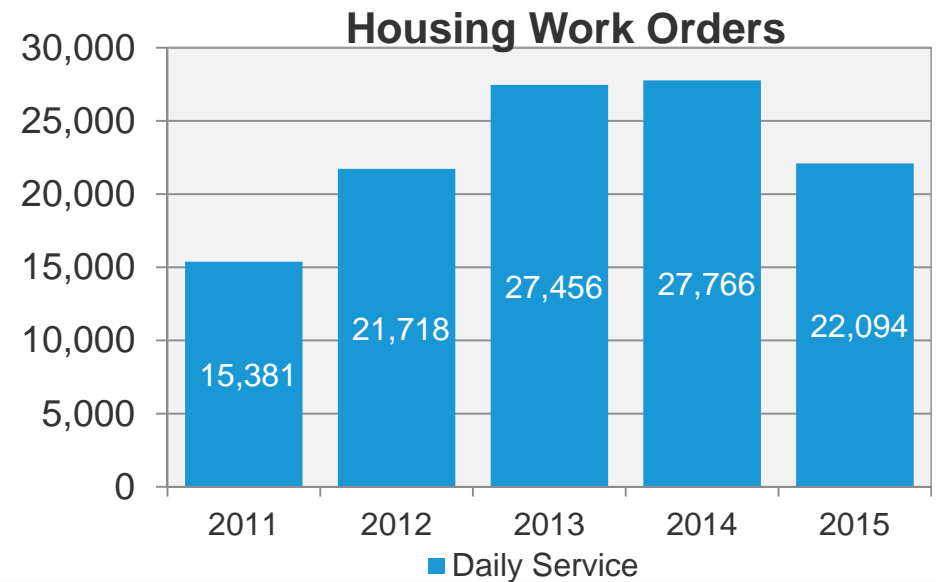
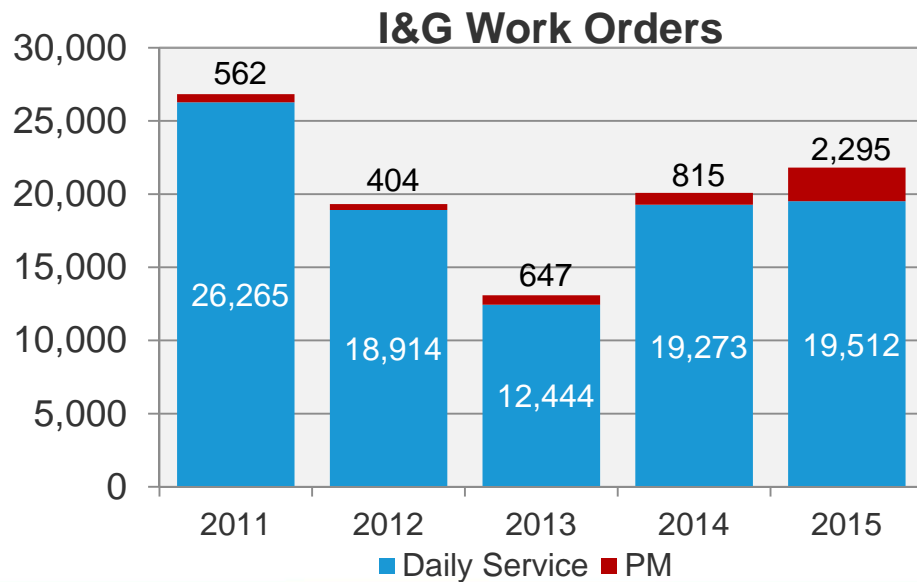


I&G: NMSU WO DATA WITH ALL COSTS 2015-09-15

WO DESC	CREATED DATE	SHOP	WO CATEGORY	ACTUAL HRS	TOTAL
BRANSON LIBRARY;	5/29/2015	STRUCTURAL MAINTENANCE	CORRECTIVE	4	\$122.69
LEAK IN WALL IN ROO	7/15/2014	PAINT	CORRECTIVE	8	\$166.88
BOOKSTORE - CEILIN	8/1/2014	PAINT	CORRECTIVE	10	\$208.60

Housing: Housing Workorder Info - FY15_PP

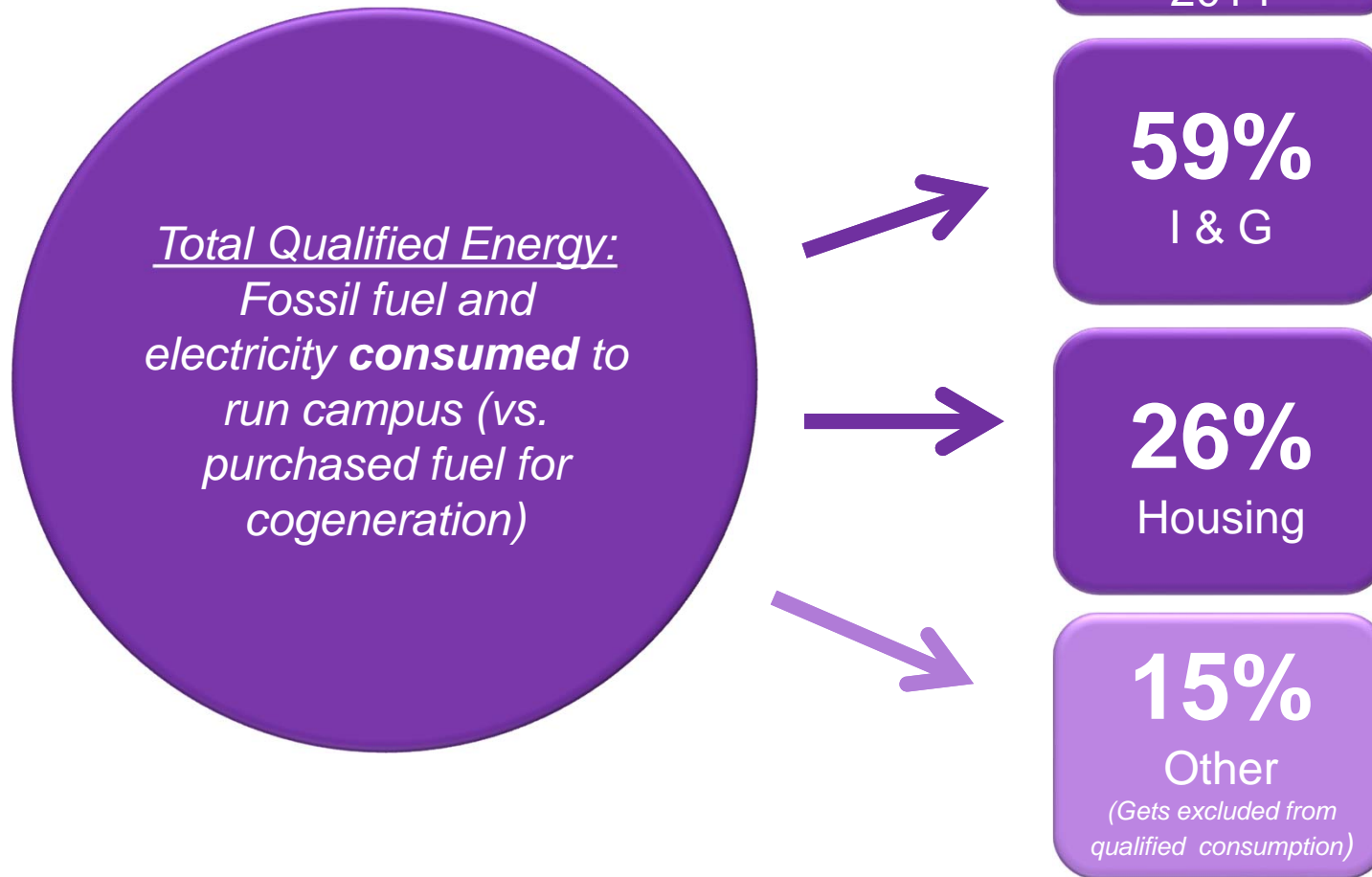
Cervantes	W/O Total	Hours	Labor	Parts	Total
2014-2015	2609	4,281.65	112,184.53	44,451.16	156,635.69
2013-2014	3489	13,644.98	142,317.14	28,665.17	170,982.31



Understanding Qualified Energy



Qualified energy cost & consumption is used to benchmark against our database



Making Energy “Qualified”



Shift Input Fuels to End Use

Fossil

Fossil Fuel for
Electric
Generation

Fossil Fuel for
Heating,
Cooling, etc.



Electric

Generated
Electric at Fossil
Cost

Purchased
Electricity

Energy Base Data



I&G: NMSU_ENERGY_DATA_FY15

	Purchased					
	Low Press. Natural Gas		High Press. Natural Gas		Electric	
	DTH		DTH		KwHr	
	FY14	FY15	FY14	FY15	FY14	FY15
JULY	754	712	33,997	40,969	5,362,522	4,138,865
AUGUST	840	963	40,879	45,854	5,128,464	4,199,804

	Generated						
	Turbine Electric		Turbine Steam		Boilers Steam		Steam
	KwHr		KLb		KLb		KLb
	FY14	FY15	FY14	FY15	FY14	FY15	
JULY	2,942,000	3,090,753	8,758	14,428	156	2,770	17,198
AUGUST	3,307,000	3,132,435	9,458	15,200	-	2,797	17,997

Housing: 2. Housing Utility Data_revised 11 16 2015

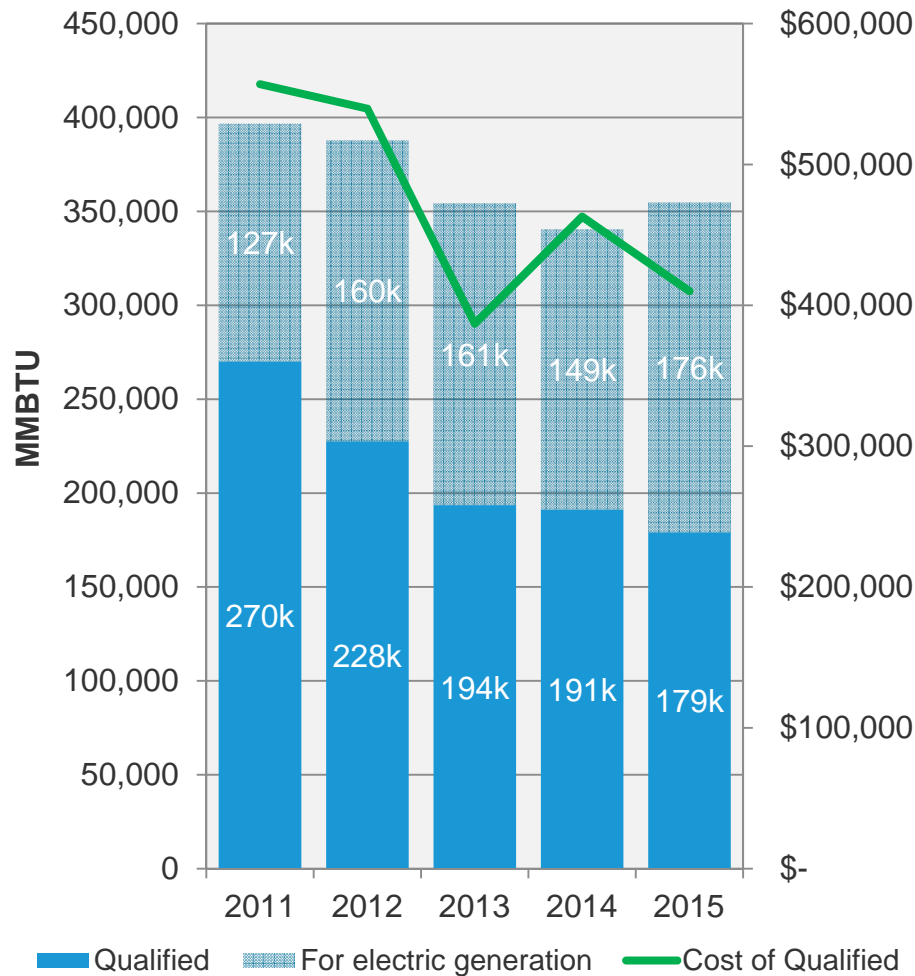
BILL						
TRANSACTION	BUILDING NAME	UTILITY TYPE	BILLING PERIOD	USAGE	BILLED AMOUNT	
1372	CERVANTES VILLAGE APT COMPLEX	ELECTRIC ENERGY	2014-07	11108.2225	1028.62	
1372	CERVANTES VILLAGE APT COMPLEX	ELECTRIC ENERGY	2014-07	12496.3009	1157.16	

Historical Fossil Fuel Trends

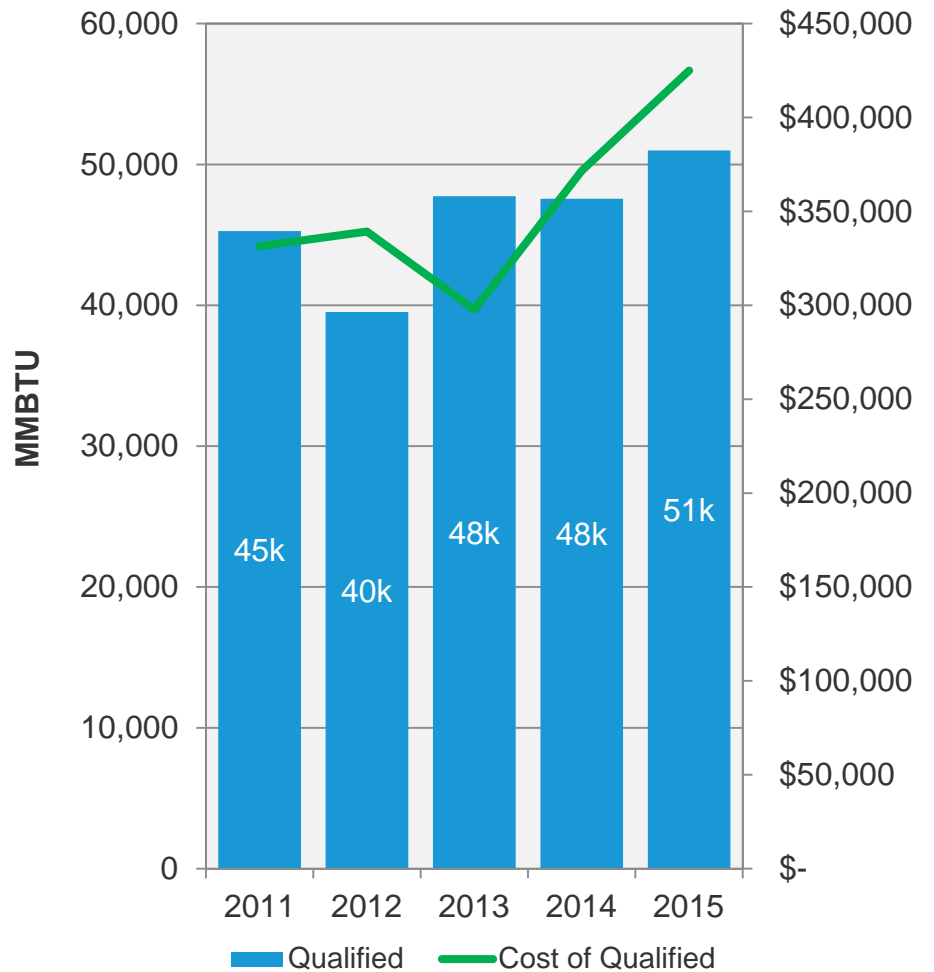


I&G consumption decreased 34% since FY11; Removed Corbett from Housing analysis

I&G Fossil Consumption & Cost



Housing Fossil Consumption & Cost

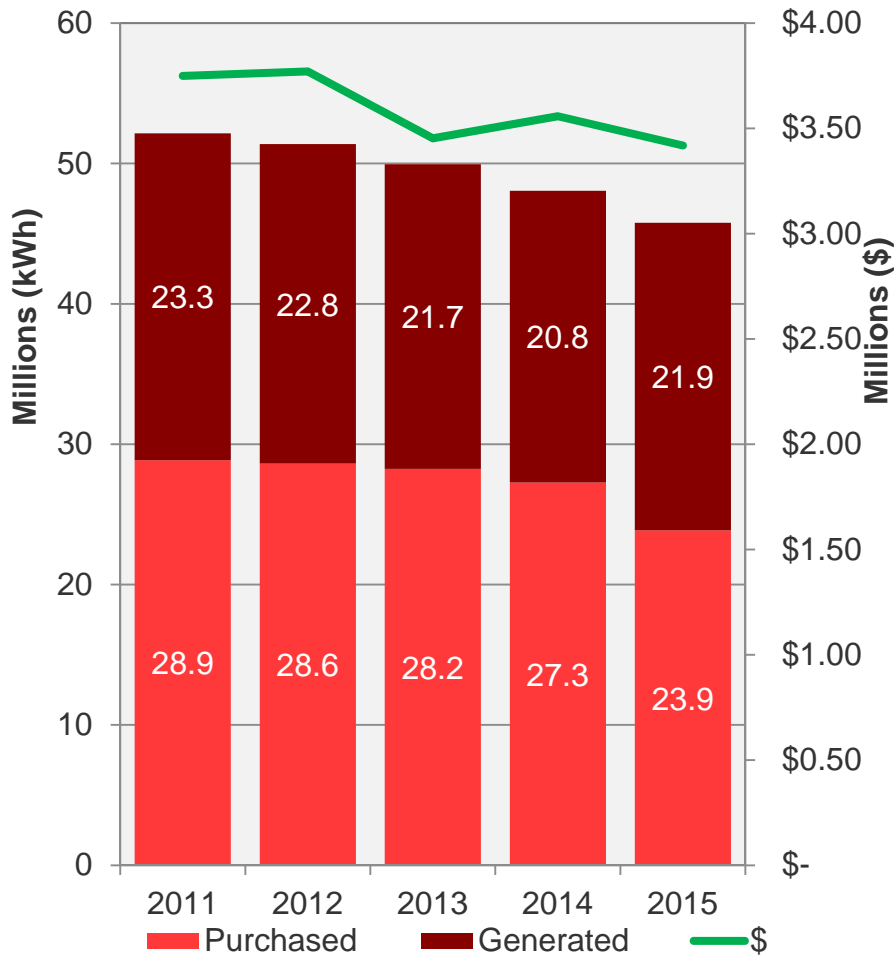


Historical Electrical Trends

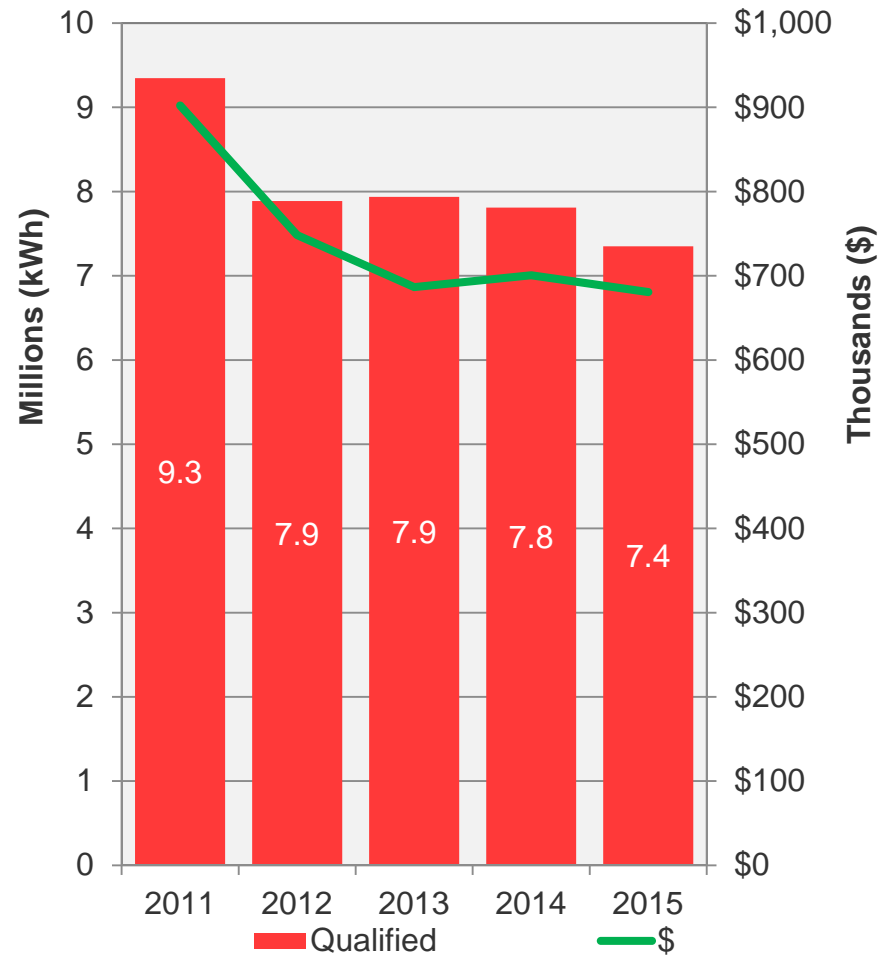


I&G consumption decreased 12% since FY11; Housing decreased 21% since FY11

I&G Electric Consumption & Cost



Housing Electric Consumption & Cost

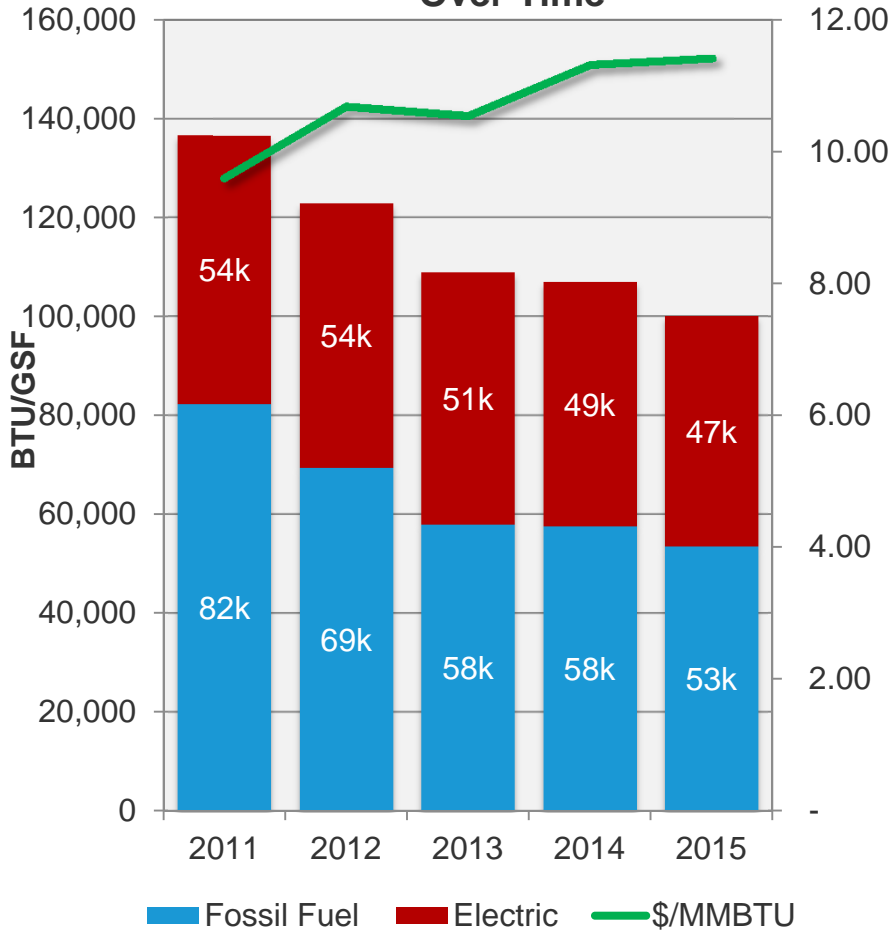


Historical Total Energy Trends

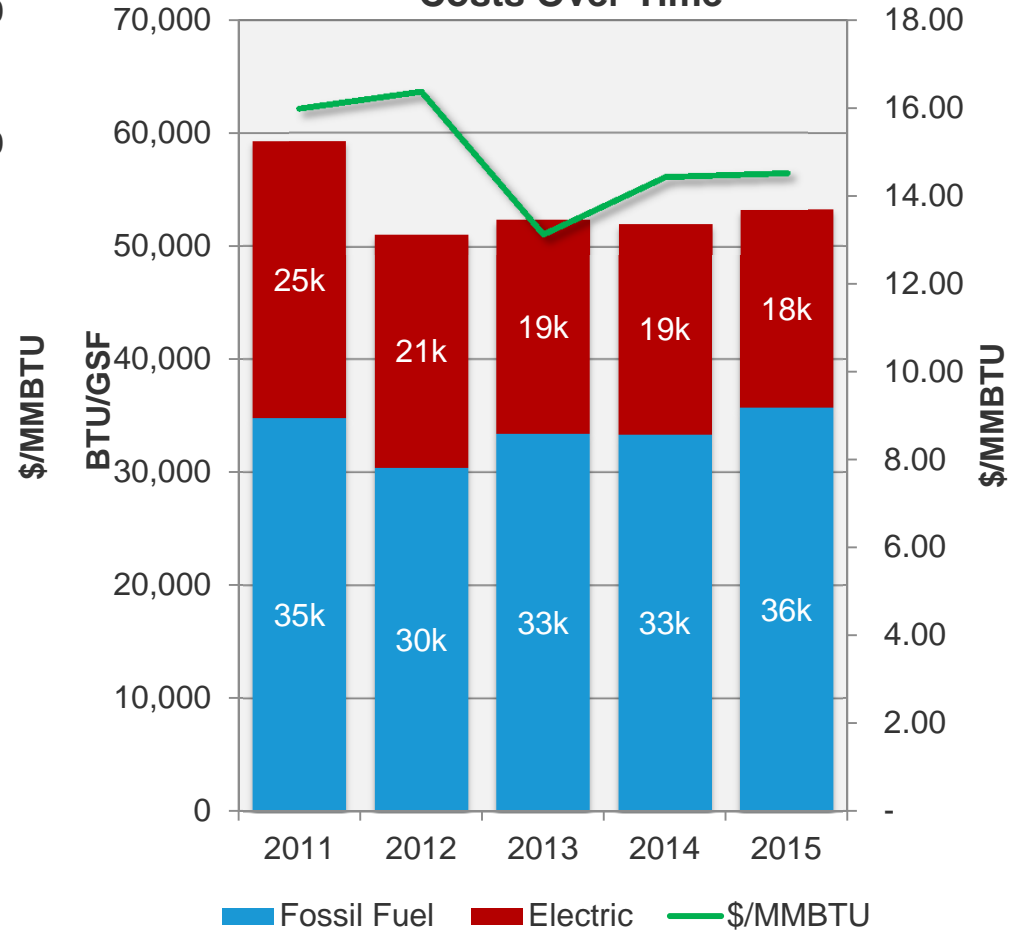


I&G consumption decreased 27% since FY11; % of Housing fossil consump. increasing

I&G Normalized Consumption & Costs Over Time



Housing Normalized Consumption & Costs Over Time



Service and Peer Groups

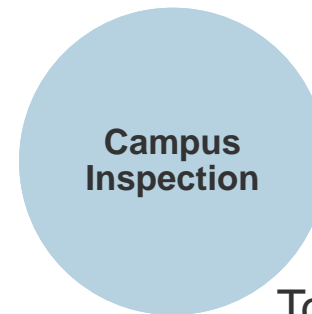
The Service Relationship



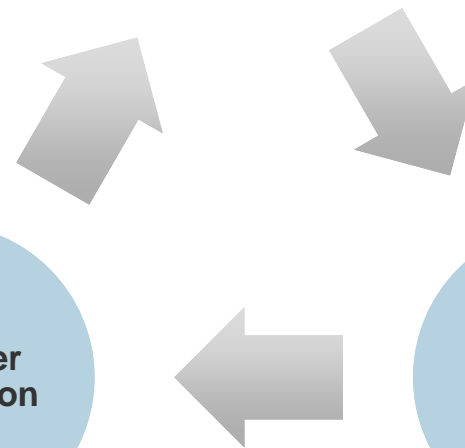
Have there been any changes to the work request process?



NMSU conducts its own survey. Results not compatible with Sightlines survey.



To be conducted at the next campus visit.



NMSU Peers



Add University of New Mexico?

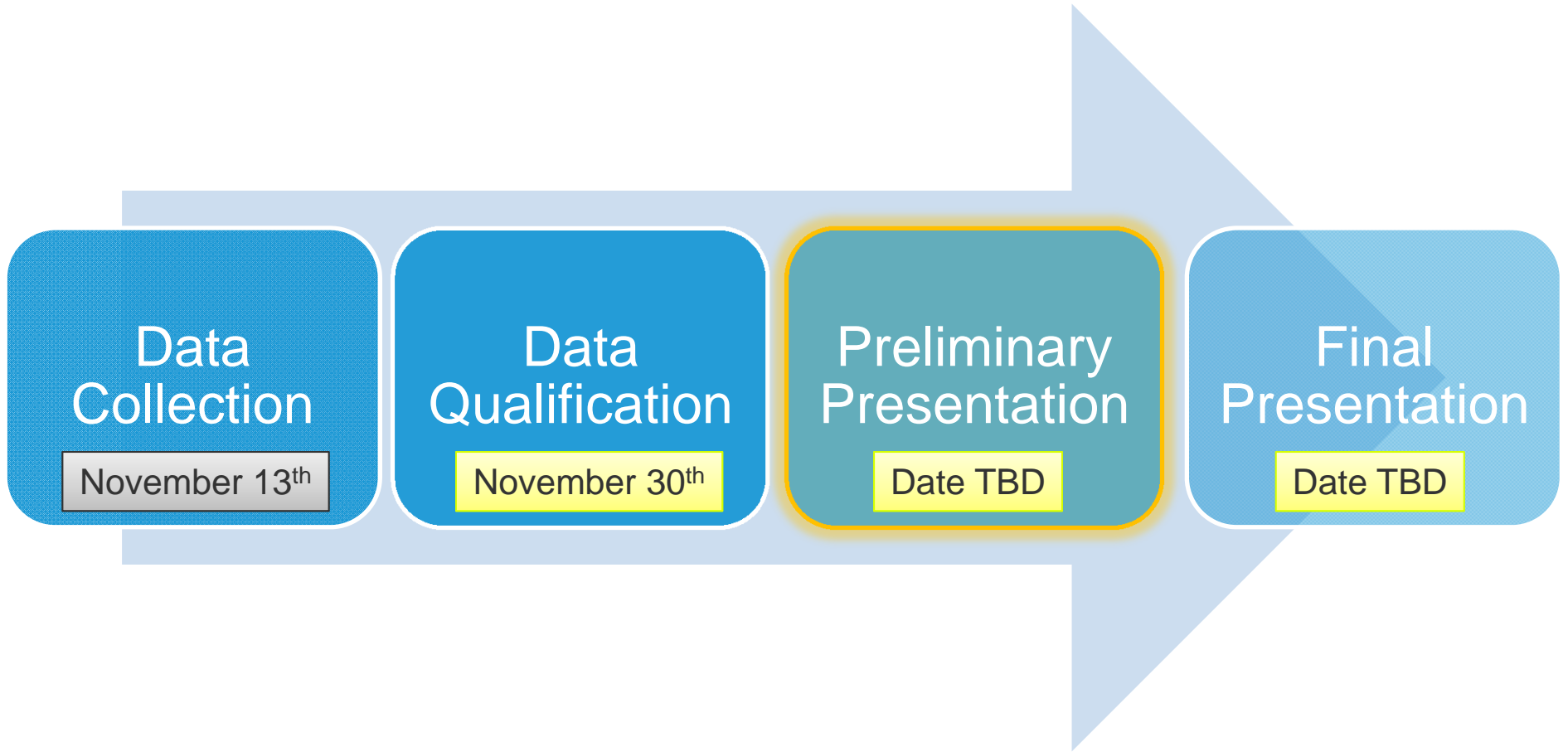
I&G - Peer Institutions
Iowa State University
Kansas State University
The University of Arizona – Main Campus
University of Colorado – Boulder – E&G
University of Idaho
University of Missouri – Columbia
University of Southern Mississippi

Housing – Peer Institutions
Clemson University - Housing
George Mason University - Housing
Montana State University - Auxiliary
Princeton University – Rental Housing
The University of Alabama – Tuscaloosa - Housing
University of Idaho - Housing
University of Northern Iowa - DOR
University of Rhode Island – Housing
University of Southern Mississippi - Housing

Comparative Considerations
Size, technical complexity, region, geographic location, setting, and institutional peers are all factors included in the selection of peer institutions

Follow-up Items and Timeline

FY15 Project Timeline



Next Steps



Updates to ROPA Data

- Update data pieces based on today's discussions
- Campus inspection

Schedule Presentations

- Preliminary Presentation: Are there issues/topics that New Mexico State University would like Sightlines to cover in the preliminary presentation?
- Final Presentation: If requested

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Questions & Discussion