Advancing Green Purchasing in Local Governments

Results from a nationwide study

Center for Organization Research and Design
Arizona State University
Sustainable Purchasing Research Initiative
ASU Center for Organization Research and Design

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Cities as Innovators
1. Do cities that adopt a GPP differ from nonadopters?

2. What factors are associated with GPP implementation success?
Project Scope

- Grant from V. Kann Rasmussen Foundation

- Sample of 791 U.S. cities of > 25,000 residents
  - Representative based on location, size and income

- Surveyed department directors
  - Environment, finance and public works

- Focused specifically on environmental sustainability

- Data collection completed April 2017
  - 58.0% cities (459)
  - 33.8% individuals (616)
GPP Adoption

60% (n=366)

28% (n=170)

12% (n=73)

No Green Purchasing Policy

Don't Know

Green Purchasing Policy

Successful

Neutral/Unsuccessful

Center for Organization Research and Design
Arizona State University

Sustainable Purchasing Research Initiative
1. Do cities that adopt a GPP differ from nonadopters?

A. Citywide complementary policies and practices
B. Purchasing criteria
C. Information access
D. Leadership and resources
E. Vendor roles
A. Complementary Policies

Citywide Implementation of Complementary Environmental Policies

- Env Sustainability Policy: 76% Green Purchasing Policy, 15% No Green Purchasing Policy
- Green Building Policy: 76% Green Purchasing Policy, 17% No Green Purchasing Policy
- Energy Conservation Policy: 66% Green Purchasing Policy, 28% No Green Purchasing Policy
- Water Conservation Policy: 66% Green Purchasing Policy, 40% No Green Purchasing Policy
- Recycling Policy: 85% Green Purchasing Policy, 57% No Green Purchasing Policy
- Greenhouse Gas Emissions Policy: 53% Green Purchasing Policy, 10% No Green Purchasing Policy
A. Complementary Policies

Citywide Implementation of Complementary Social Policies

- Local Business Purchasing Policy: 67% Green, 39% No Green
- Minority-Owned Business Purchasing Policy: 53% Green, 21% No Green
- Women-Owned Business Purchasing Policy: 51% Green, 18% No Green
- Veteran-Owned Business Purchasing Policy: 23% Green, 5% No Green
- Small Business Purchasing Policy: 33% Green, 7% No Green
A. Complementary Practices

Citywide Implementation of Environmental Practices

- Set Goals / Targets for Env Performance: 57% Green Purchasing Policy, 17% No Green Purchasing Policy
- Publication of Env Sustainability Report: 37% Green Purchasing Policy, 13% No Green Purchasing Policy
- Env Training for all City Employees: 31% Green Purchasing Policy, 8% No Green Purchasing Policy
- Track Spending of Env Sustainability Activities: 34% Green Purchasing Policy, 12% No Green Purchasing Policy
- Internal Audits of Env Performance: 29% Green Purchasing Policy, 8% No Green Purchasing Policy
- Env Management System: 14% Green Purchasing Policy, 4% No Green Purchasing Policy

Legend:
- Green Purchasing Policy
- No Green Purchasing Policy
A. Complementary Practices

Citywide Implementation of Complementary Purchasing Activities

<table>
<thead>
<tr>
<th>E-Procurement System</th>
<th>Contracts to Reduce Purchasing Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Purchasing Policy</td>
<td>43%</td>
</tr>
<tr>
<td>No Green Purchasing Policy</td>
<td>29%</td>
</tr>
</tbody>
</table>

Green Purchasing Policy
No Green Purchasing Policy
B. Purchasing Criteria

Importance of Departments’ Purchasing Criteria

- Reducing GHG Impacts: 49% Green, 15% Blue
- Recycling or Reuse: 57% Green, 28% Blue
- Env Impacts of Products / Services: 50% Green, 23% Blue
- Technical Specs to Manage Env Concerns: 46% Green, 23% Blue
- Reducing Packaging Waste: 38% Green, 16% Blue
- Buying from Minority / Women-Owned Businesses: 29% Green, 11% Blue
- Buying from Veteran-Owned Businesses: 53% Green, 39% Blue
- Disposal Costs: 16% Green, 7% Blue
- Importing from Countries with Lower Environmental Standards: 15% Green, 23% Blue

Legend:
- Green Purchasing Policy
- No Green Purchasing Policy
B. Purchasing Criteria

Importance of Environmental Concerns to Specific Types of Products

- Chemical Product Purchases: 72% Green, 51% No Green
- Wood and Paper Product Purchases: 61% Green, 30% No Green
- Transportation/Fuel Purchases: 61% Green, 37% No Green
- IT Hardware and Service Purchases: 49% Green, 31% No Green
- General Construction Service Purchases: 54% Green, 38% No Green
- Professional Service Purchases: 39% Green, 28% No Green
- Electrical Product Purchases: 51% Green, 40% No Green

Legend:
- Green Purchasing Policy
- No Green Purchasing Policy
C. Information Access

Information Sources Available to Departments When Making Purchasing Decisions

- Green Product/Service List: 45% (Green Purchasing Policy), 13% (No Green Purchasing Policy)
- Minority Business List: 54% (Green Purchasing Policy), 25% (No Green Purchasing Policy)
- Info on Env Impacts of Products: 51% (Green Purchasing Policy), 26% (No Green Purchasing Policy)
- Small Business List: 44% (Green Purchasing Policy), 19% (No Green Purchasing Policy)
- Product Ecolabels/Certifications: 47% (Green Purchasing Policy), 24% (No Green Purchasing Policy)
D. Leadership and Resources

Facilitators of Departments’ Ability to Implement Green Purchasing

- Top Management: 69% with Green Purchasing Policy, 48% without
- Employee Attitudes: 48% with Green Purchasing Policy, 32% without
- Financial Resources: 34% with Green Purchasing Policy, 26% without

Legend:
- Green Bar: Green Purchasing Policy
- Blue Bar: No Green Purchasing Policy
D. Leadership and Resources

Importance of Federal/State Resources to Promoting City-Level Environmental Sustainability

- Awards / Recognition Programs: 50% Green, 21% No Green
- Educational Programs: 57% Green, 31% No Green
- Grants: 70% Green, 21% No Green
- Voluntary Programs: 38% Green, 21% No Green
- Technical Assistance: 39% Green, 25% No Green

Green Purchasing Policy
No Green Purchasing Policy
E. Vendors

- Many Vendors Offer Env Friendly Products/Services: 57% (Presence), 36% (Absence)
- Vendors Help us Learn About Env Sustainable Purchasing Options: 50% (Presence), 35% (Absence)
- Vendors are Very Influential in Promoting Env Sustainability Practices: 18% (Presence), 11% (Absence)
- It is Easy to Switch Vendors in my Dept: 62% (Presence), 70% (Absence)

Legend:
- Green bar: Green Purchasing Policy
- Blue bar: No Green Purchasing Policy
Where GPP Adopters and Nonadopters are Similar...

- **Department importance of purchasing criteria related to:**
  - Product price
  - Execution of pre-existing contract agreements
  - Performance requirements
  - Tech specs in managing purchase complexity
  - Lifecycle costs in department’s purchasing decisions

- **Department rules**

- **Department commitment to innovation**
GPP Implementation Success

Green Purchasing Policy Adoption and Implementation Success

- 60% (n=366) No Green Purchasing Policy
- 28% (n=170) Successful
- 12% (n=73) Neutral/Unsuccessful
- 58% Successful (n=90)
- 42% Neutral/Unsuccessful (n=65)

Legend:
- No Green Purchasing Policy
- Don’t Know
- Green Purchasing Policy
- Successful
- Neutral/Unsuccessful
2. What Factors Are Associated With GPP Success?

A. Citywide complementary policies and practices
B. Information access
C. Leadership and resources
D. Vendor roles
E. Innovation culture
A. Complementary Policies

Probability of Successful Implementation of Green Purchasing Policy, Given Citywide Policies

- Presence of Environmental Sustainability Policy: 67%
- Absence of Environmental Sustainability Policy: 29%
- Presence of GHG Emissions Policy: 77%
- Absence of GHG Emissions Policy: 45%
- Presence of Water Conservation Policy: 72%
- Absence of Water Conservation Policy: 46%
- Presence of Energy Conservation Policy: 71%
- Absence of Energy Conservation Policy: 49%
- Presence of E-procurement System: 53%
- Absence of E-procurement System: 63%
A. Complementary Practices

Probability of Successful Implementation of Green Purchasing Policy, Given Citywide Practices

<table>
<thead>
<tr>
<th>Presence/Absence</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Env Sustainability Director Presence</td>
<td>75%</td>
</tr>
<tr>
<td>Absence</td>
<td>46%</td>
</tr>
<tr>
<td>Env Sustainability Committee Presence</td>
<td>62%</td>
</tr>
<tr>
<td>Absence</td>
<td>51%</td>
</tr>
<tr>
<td>Goals/Targets for Env Performance Presence</td>
<td>70%</td>
</tr>
<tr>
<td>Absence</td>
<td>41%</td>
</tr>
<tr>
<td>Discussions About Env Sustainable Purchasing Practices Across Units Presence</td>
<td>63%</td>
</tr>
<tr>
<td>Absence</td>
<td>47%</td>
</tr>
</tbody>
</table>
B. Information Access

Probability of Successful Implementation of Green Purchasing Policy, Given Access to Types of Information

- Env Impact of Products: 68% Presence, 45% Absence
- Green Product/Service List Available: 72% Presence, 51% Absence
- Tracking of Spending on Env Sustainability Activities: 71% Presence, 52% Absence
- Online Database of Env Friendly Products and Services: 58% Presence, 42% Absence
C. Leadership and Responsibility

Probability of Successful Implementation of Green Purchasing Policy, Given Directors’ Perceptions of Locus of Responsibility

- Top Managers are Responsible
  - Agree: 80%
  - Disagree: 67%

- Mid-Level Managers are Responsible
  - Agree: 50%
  - Disagree: 79%

- Staff Employees are Responsible
  - Agree: 50%
  - Disagree: 89%
D. Vendors

Probability of Successful Implementation of Green Purchasing Policy, Given Directors' Perceptions of Vendor Roles

Many of my Department's Vendors Offer Env Friendly Products and Services

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>80%</td>
<td>33%</td>
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</tbody>
</table>

Vendors Help us Learn About Env Sustainable Purchasing Options

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>83%</td>
<td>50%</td>
</tr>
</tbody>
</table>
E. Innovation Culture

Probability of Successful Implementation of Green Purchasing Policy, Given Directors’ Perceptions of Departments’ Innovation Culture

- **We Reward Employees who Develop Innovative Solutions**
  - Agree: 75%
  - Disagree: 17%

- **Department has a Strong Commitment to Innovation**
  - Agree: 75%
  - Disagree: 33%

- **Most Department Employees are not Afraid to Take Risks**
  - Agree: 62%
  - Disagree: 44%
What Doesn’t Matter

- Department rules

- Department importance of purchasing criteria related to:
  - Product price
  - Execution of pre-existing contract agreements
  - Performance requirements
  - Tech specs in managing purchase complexity
  - Lifecycle costs in department purchasing decisions
Recommendations for U.S. Cities to Increase GPP Adoption and Implementation Success
Our 8 Recommendations

1. Build on complementary policies and practices

2. Use information about environmentally preferred products
   - See U.S. Environmental Protection Agency’s Guidelines for
     Environmental Performance Standards and Ecolabels

3. Utilize e-procurement systems that integrate environmental product information
   - See U.S. Environmental Protection Agency’s Summary of Work: Review
     of Federal E-Procurement Systems for Sustainable Purchasing Integration

4. Track spending related to green purchases
Our 8 Recommendations (cont’d)

5. **Enhance collaborative** vendor relationships

6. **Assign accountability** to top-level management

7. **Foster a culture** for innovation

8. **Participate in professional networks** to share best practices
Additional Information

Visit spa.asu.edu/greenpurchasing

Questions?

Email SPRI@asu.edu